FOR.A®

INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

OPERATION & SERVICE MANUAL

NTSC COMPONENT TRANSCODER **CT-600**

FOR-A COMPANY LIMITED

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OPERATION MANUAL

NTSC COMPONENT TRANSCODER **CT-600**

FOR-A COMPANY LIMITED

SECTION 1. INTRODUCTION

1-1. GENERAL

The CT-600 is a transcoder with RGB, Y/PR/PB, Y/C358 and Y/C688 inputs and outputs.
Whichever input is selected, any of the outputs, and composite signal output can be produced.
(C358: S-VHS chroma signal;
C688: U-MATIC DUB chroma signal.)
Using this unit in conjunction with other component equipment will give the component system an even greater degree of freedom in use.

1-2. FEATURES

- When component signals are recorded on a VTR furnished with component inputs, the recording can be performed with a minimum of signal loss.
- An RGB monitor can be used to view a variety of component signal outputs.

1-3. INSTALLATION

The CT-600 is a durable, high performance product. Carefully follow all instructions in this manual to ensure smooth, trouble-free operation.

a. Unpacking

This unit is fully assembled prior to shipment, and is ready to operate immediately after unpacking. Check the goods against the accessory list in table 1-1.

Table 1-1. CT-600 Packing List

ITEM	Quantity
Main Unit	1
Power Supply cord	1
Operation Manual	1
Rack Mounting Kit	1

b. Check

Check to ensure that no damage has been caused during shipment. If there is any damage, informe the supplier immediately.

c. Power Supply

This unit can be operated either on 200 - 240VAC or

110 - 115VAC 50/60Hz. The voltage should be specified at the time of purchasing.

d. Ground

To protect operators from electrical shocks, this unit is fitted with a 3-pin power cable, therefore simply by con- necting to an AC outlet, the unit is grounded. In the event of the power supply outlet being a 2 pin-socket, use a 2-pin to 3-pin connector adaptor and ground the green wire(pig tail) of the converter or earth terminal of the main unit.

e. Installation

Avoid using this unit in environments of high temperature, high humidity or dusty areas. Moderate air-cooling is required for optimum operating of this unit. Ensure that no other equipment is located closer than 5cm from the front or rear of this unit.

f. Tabletop Unit

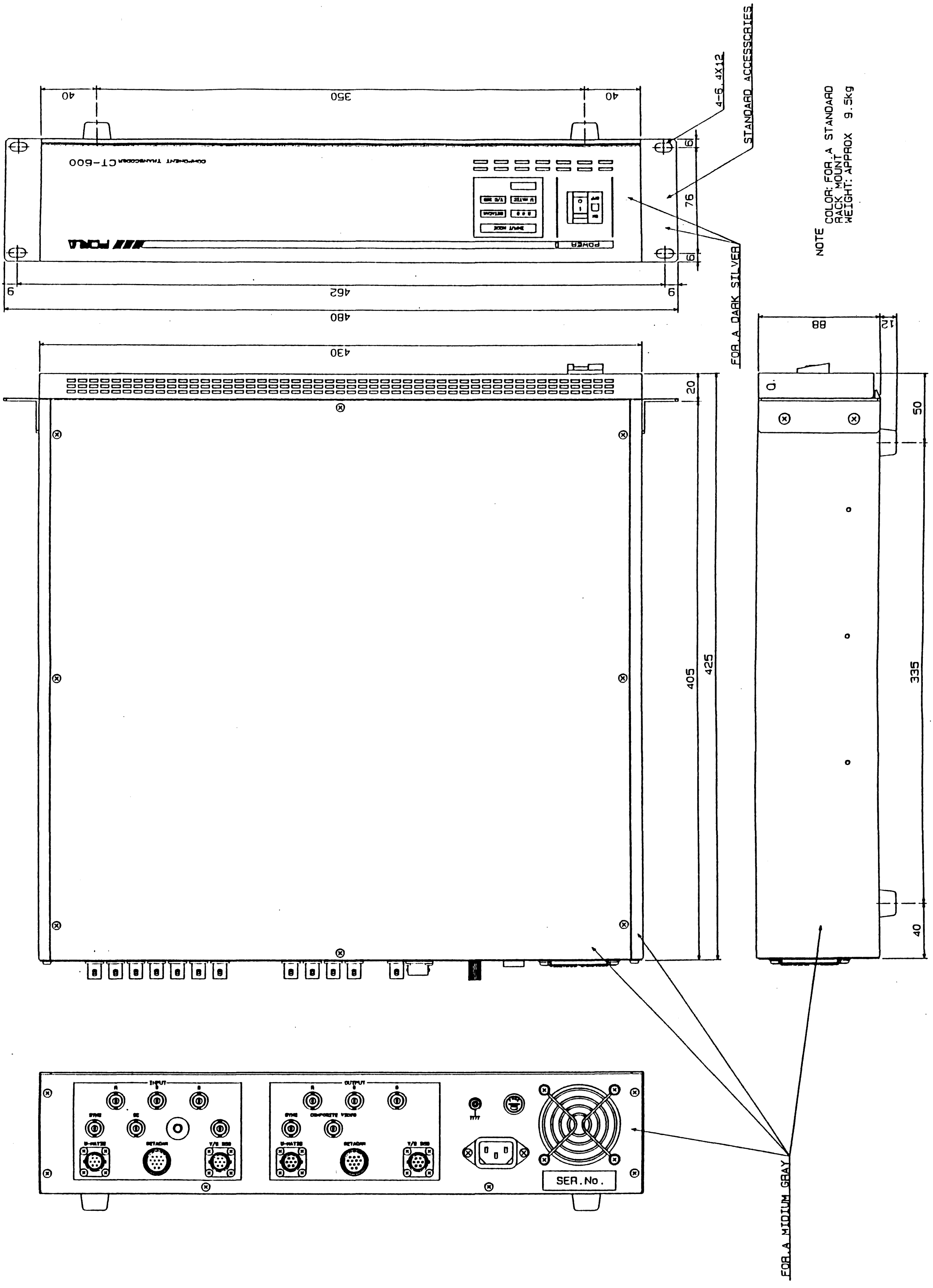
This unit is fitted with rubber feet on the base plate for use as a tabletop unit.

g. Rack-Mounted

For rack mounting, remove the rubber feet and use the accessory brackets fitted to the unit.

1-4. EXTERNAL DIMENSIONS

(Unit: mm)



NOTE
COLOR: FOR.A STANDARD
RACK MOUNT
WEIGHT: APPROX 9.5kg

SECTION 2 . SPECIFICATIONS AND OPERATION

2-1. SPECIFICATIONS

Input Signals
(100%White, 75%Color bar, 0%Set up)

1) RGB

VIDEO: 0.7Vp-p (75Ω)
SYNC: 4Vp-p (75Ω)
or
0.3V sync included with the G signal.

2)Y, PR, PB (BETACAM)

Y:1Vp-p (75Ω) 0.7/0.3
PR(R-Y): 0.757Vp-p(75Ω)
PB(B-Y): 0.757Vp-p(75Ω)

3)Y/C358 (S-VHS, ED-BETA)

Y:1Vp-p (75Ω)
C:(Burst) 0.286Vp-p

4)Y/C688 (U-DUB)

Y:1Vp-p
C:0.9Vp-p

5)SYNC

4Vp-p (75Ω)

Output Signals

1)RGB

VIDEO: 0.7Vp-p (75Ω)
SYNC: 4Vp-p (75Ω)
or
0.3V sync included with the G signal.

2)Y, PR, PB (BETACAM)

Y:1Vp-p (75Ω) 0.7/0.3
PR(R-Y): 0.757Vp-p(75Ω)
PB(B-Y): 0.757Vp-p(75Ω)

3)Y/C358 (S-VHS)

Y:1Vp-p (75Ω)
C:(Burst)0.286Vp-p

4)Y/C688 (U-DUB)

Y:1Vp-p
C:0.9Vp-p

5)SYNC

4Vp-p (75Ω)

6)COMPOSITE VIDEO(MONITOR OUT)

1Vp-p(75Ω)

Frequency Respouse

From RGB to Y/PR/PB and fromY/PR/PB to RGB
All 500KHz to 5MHz , -1dB

Phase difference of R and B against G:

Within ± 5nsec

Phase difference of PR and PB against Y:

Within ± 5nsec

Tilt

Field (V)	1%
Line(H)	1%

Output DC level (RGB. Y. PR.PB)

±50mV

Environmental

Temperature (Operating)	10 to 40°C (50 to 104°F)
Humidity	10 ~90%

Dimensions

430 (W) × 88 (H) × 425 (D) mm
(17" x 3.5" x 16.7")

Power Consumption

85VA (65W)

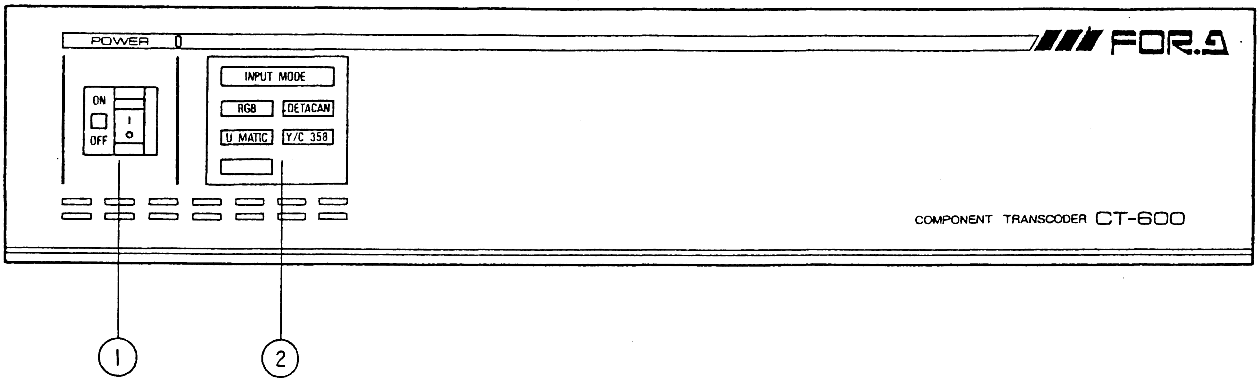
Weight

Approx 9.5Kg (21 lbs)

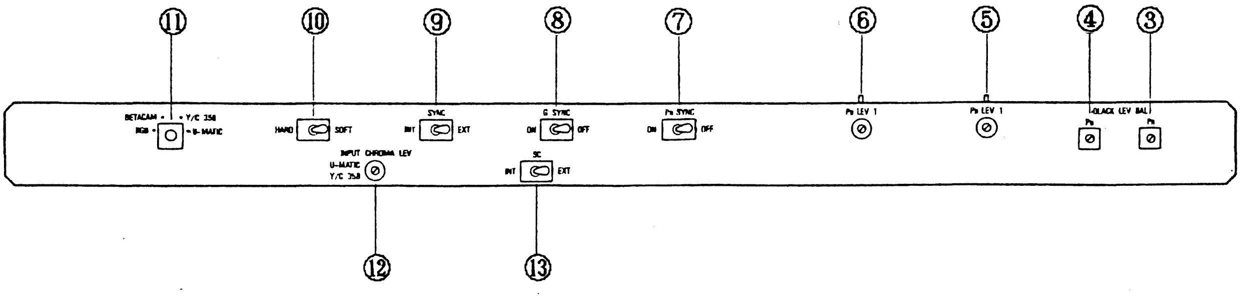
2-2. PANEL DESCRIPTION AND FUNCTIONS

2-2-1. FRONT SIDE

1) FRONT PANEL



2) FRONT EDGE CONTROLS (INSIDE THE FRONT PANEL)



1) POWER ON/OFF SWITCH, LED INDICATOR:

This switch is used to turn power to the unit ON and OFF. When the power is ON, the LED lights. When using the unit, be sure to confirm the correct power voltage.

2) INPUT MODE INDICATOR:

This indicator shows the input mode selected with the INPUT SELECT switch. When an input signal is present, the characters of the selected mode light brightly; when no signal is present, the characters become darker.

3) PR BLACK LEVEL BALANCE:

This allows control of the BETACAM OUT's PR BLACK LEVEL BALANCE. When RGB is selected as the input signal, using this control will change the PR BLACK BAL of all output signals excepting the RGB output. When BETACAM (Y, PR, PB) is selected as the input signal, using this control will change the PR BLACK BAL of all output signals. When Y/C358 or U-MATIC are selected for the input signal, using this control will modify the PR BLACK BAL of the RGB and BETACAM (Y,PR,PB) outputs.

4) PB BLACK LEVEL BALANCE:

This allows control of the BETACAM OUT's PB BLACK LEVEL BALANCE. When RGB is selected as the input signal, using this control will change the PB BLACK BAL of all output signals excepting the RGB output. When BETACAM (Y, PR, PB) is selected as the input signal, using this control will change the PB BLACK BAL of all output signals. When Y/C358 or U-MATIC are selected for the input signal, using this control will modify the PB BLACK BAL of the RGB and BETACAM (Y,PR,PB) outputs.

5) PR LEVEL:

This allows control of the PR LEVEL of the BETACAM OUT. When RGB is selected as the input signal, using this control will change the PR LEVEL of all output signals excepting the RGB output. When BETACAM (Y, PR, PB) is selected as the input signal, using this control will change the PR LEVEL of all output signals. When Y/C358 or U-MATIC are selected for the input signal, using this control will modify the PR LEVEL of the RGB and BETACAM (Y,PR,PB) outputs.

6) PB LEVEL:

This allows control of the PB LEVEL of the BETACAM OUT. When RGB is selected as the input signal, using this control will change the PB LEVEL of all output signals excepting the RGB output. When BETACAM (Y, PR, PB) is selected as the input signal, using this control will change the PB LEVEL of all output signals. When Y/C358 or U-MATIC are selected for the input signal, using this control will modify the PB LEVEL of the RGB and BETACAM (Y,PR,PB) outputs. When not in use, leave the control in its center position.

7) PR SYNC ON/OFF:

This switch allows an H-sync to be added to the PR signal of the BETACAM (Y,PR,PB) outputs. When in the OFF position, no H- sync is added to the PR output. When in the ON position, an H- sync of about 0.6Vp-p is added to the PR output.

8) G-SYNC ON/OFF:

This switch allows a sync signal to be added to the RGB output's G signal. When the input signal selected is an RGB input accompanied by a G-sync, be sure that this switch is in the OFF position.

9) SYNC INT/EXT:

Set this switch to the EXT position when supplying an external sync to the input signal. When RGB is selected as the input signal and the G signal is accompanied by its own sync signal, set the switch to INT. The G-sync will be separated internally in order for the unit to operate properly.

10) HARD/SOFT switch:

This switch allows reduction in the fine level noise of Y- signal inputs. When the HARD position is selected, only high-frequency noise is removed; when the switch is in the SOFT position, however, low-frequency noise as well will be removed. When the input signal contains a great deal of noise, set the switch to the SOFT position.

11) INPUT MODE SELECT:

This rotary switch is used to set the input mode. The selected mode will be displayed on the INPUT MODE INDICATOR.

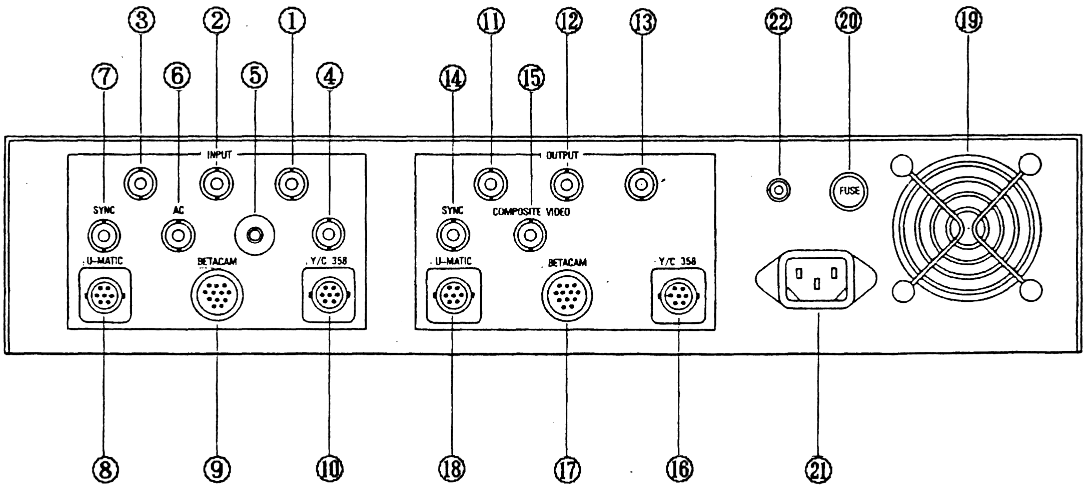
12) INPUT CHROMA LEVEL:

When Y/C358 or U-MATIC are selected for the input signal, using this control allows the chroma component level to be modified in a range of about ±3dB. In this way, the correct level balance between chroma and luminance signals can be maintained. When not in use, leave the control in its center position. When RGB or BETACAM (Y,PR,PB) are selected as the input signal and you wish to modify the chroma component level, change the PR LEVEL and PB LEVEL the same amount in order to provide the correct level balance between chroma and luminance signals.

13) SC INT/EXT:

When operating the CT-600 with an external SC(sub carrier)signal, set this switch to the EXT(external) position. Be sure to provide a stable SC to the SC IN input. When no stable SC is input to the SC IN, or when not connected, set the switch to its INT(internal) position. The SC will be generated by the CT-600's own internal stable crystal oscillator.

2-2-2. REAR PANEL



1) B IN:

This is the B(blue)signal input, used when selecting RGB as the input signal. Be sure to use a signal which does not have a sync signal added to it.

2) G IN:

This is the G(green)signal input, used when selecting RGB as the input signal. When the G signal has a sync signal added to it, set the SYNC INT/EXT switch to its INT position. When a sync signal is supplied from SYNC IN, set the switch to its EXT position.

3) R IN:

This is the R(red)signal input, used when selecting RGB as the input signal. Be sure to use a signal which does not have a sync signal added to it.

4) SPARE:

This is a spare (not used) terminal.

5) SPARE:

This is a spare (not used) hole.

6) SC IN:

The CT-600 uses this as the reference when performing its internal decode and encode processing of the input signal. Be sure to input a stable 3.58MHz SC(sub carrier) signal. Also remember that this input is selected only when the SC INT/EXT switch is set to the EXT position. When no input is provided to the SC IN connector, or when it is not stable, set the switch to the INT position.

7) SYNC IN:

This is the connector used when inputting an external sync signal to the CT-600. Remember that this input will be selected only when the SYNC INT/EXT switch is set to its EXT position. When no input is provided to the SYNC IN connector, or when it is not synchronized to the selected input signal, set the switch to the INT position.

8) U-MATIC IN:

Connect this terminal to the U-DUB OUT of a U-MATIC VTR unit. The mode selected is displayed on the front panel. For the connector's pin arrangement, see section 2-3.

9) BETACAM IN:

Use this input connector when selecting BETACAM as the input signal. Be sure to use a signal which does not have added PR or PB signals. For the connector's pin arrangement, see section 2-3.

10) Y/C358 IN:

Use this input connector when selecting Y/C358 as the input signal. For the connector's pin arrangement, see section 2-3.

11) R OUT:

This is the R signal output connector. During use, the R signal will be output regardless of the position of the INPUT MODE SELECTOR.

12) G OUT:

This is the G signal output connector. During use, the G signal will be output regardless of the position of the INPUT MODE SELECTOR. When you wish to add a sync signal to the G signal output, set the G-SYNC switch to ON position.

13) B OUT:

This is the B signal output connector. During use, the B signal will be output regardless of the position of the INPUT MODE SELECTOR.

14) SYNC OUT:

This is the SYNC output which has been separated from the input sync. Compared to the input signal, this output is delayed by approx. 500nsec.

15) COMPOSITE VIDEO OUT:

This output connector is used for connection to a monitor. Since this output does not preserve the SCH relationship, it can not be used as the input for a switcher, etc.

16) Y/C 358 OUT:

This is the Y/C 358 output signal connector. For the connector's pin arrangement, see section 2-3.

17) BETACAM OUT:

This is the Y,PR,PB output signal connector. For the connector's pin arrangement, see section 2-3.

18) U-MATIC OUT:

This is the U-DUB signal output connector. Connect to the U-DUB IN connector of a U-MATIC VTR unit. For the connector's pin arrangement, see section 2-3.

19) FAN:

This fan serves the purpose of preventing excessive temperature rise inside the CT-600, thus allowing constant stable operation. For precautions during installation, see section 1- 3.

20) FUSE:

This fuse is provided to protect the CT-600 without causing any external effects. Be sure to use a fuse of the rating listed on the label.

21) AC IN:

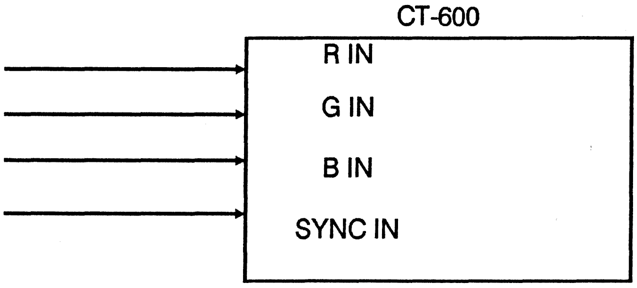
Use the accessory AC cable to connect here, thus supplying power to the CT-600. When connecting the unit, be sure to confirm the CT-600's correct power voltage setting.

22) GND terminal:

Earth this terminal during installation.

2-3. CONNECTION EXAMPLES

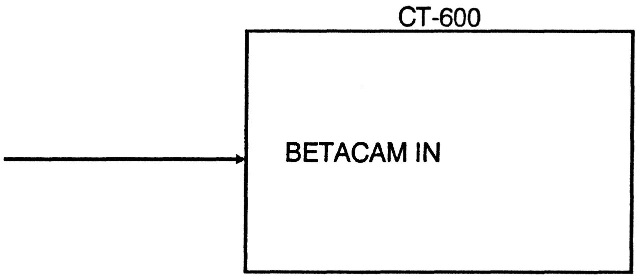
2-3-1. When selecting RGB as the input signal



1) When using an input G signal which has an added sync signal, set the SYNC INT/EXT switch to the INT position.

2) Note that the CT-600 will not operate properly if a sync signal is added to any signal (R or B signal) other than the input G signal.

2-3-2. When selecting BETACAM as the input signal

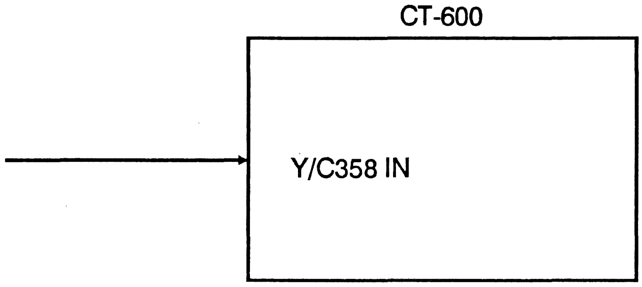


The signal is input via the 12-pin multi-connector. The connector's pin arrangement is as shown at right.

CONNECTOR : RM15 TRD-12S

NO.	DESCRIPTIONS
1	Y IN
2	Y IN GND
3	PR IN
4	PR IN GND
5	PB IN
6	PB IN GND
7 - 12	Not used

2-3-3. When selecting Y/C358 as the input signal

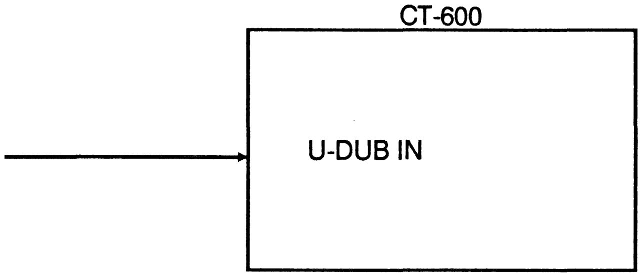


The signal is input via the 7-pin multi-connector. The connector's pin arrangement is as shown at right.:

CONNECTOR : RM12-BRD-7S

NO.	DESCRIPTIONS
1	Y IN
2	Y IN GND
3	Not used
4	Not used
5	C IN
6	C IN GND
7	Not used

2-3-4. When selecting U-DUB as the input signal

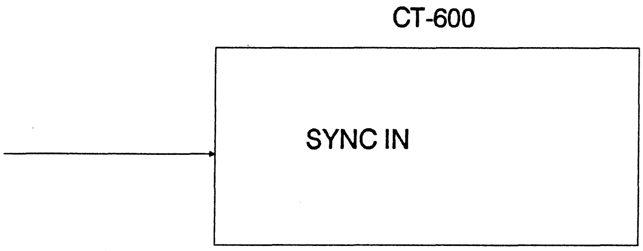


1) The signal is input via the 7-pin multi-connector. The connector's pin arrangement is as shown below.
CONNECTOR : RM12-BRD-7S

2) The signal furnished to DUB IN should be a high-quality signal, as free from noise, jitter and skew as possible. If a poor signal is furnished, the CT-600's color process circuitry may not operate properly.

NO.	DESCRIPTIONS
1	Y IN
2	Y IN GND
3	Not used
4	Not used
5	C IN
6	C IN GND
7	CFP IN

2-3-5. When inputting a SYNC signal



1) A sync signal can be input in all input modes.

2) When operating the CT-600 with an external sync, set the SYNC INT/EXT switch to its EXT position. When no external sync is input, set the switch to its INT position. If this switch is not set properly, the CT600 will not function correctly.

3) The external sync signal must be synchronized to the input signal selected. The CT-600 will not operate properly if a synchronized signal is not used.

SERVICE MANUAL

NTSC COMPONENT TRANSCODER CT-600

FOR-A COMPANY LIMITED

SECTION 3. ADJUSTMENT PROCEDURE

3-1. MEASURING INSTRUMENTS

Use the following measuring instruments or those of at least equivalent performance.

Component test signal generator	Tektronix TSG-300
Color monitor	RGB input; with external sync terminal
Vectorscope	Tektronix 520A
Oscilloscope	Dual trace type with frequency response of at least 100 MHz

3-2. MAINS VOLTAGE CHECK

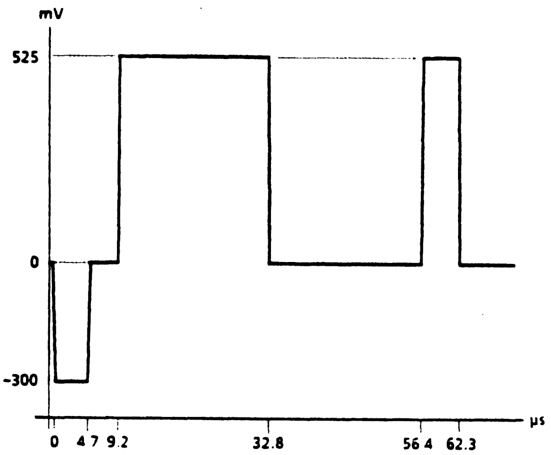
Before performing adjustments, be sure to check the mains voltage. Check the voltages at the following points on the POWER SUPPLY board.

	Check point	Measured value
1.	CH3-1 CH4-1	-11.4 V to -12.6 V
2.	CN3-2 CN4-2	+11.8 V to +12.2 V
3.	CN3-5 CN4-5 CN3-6 CN4-6	+4.9 V to +5.1 V

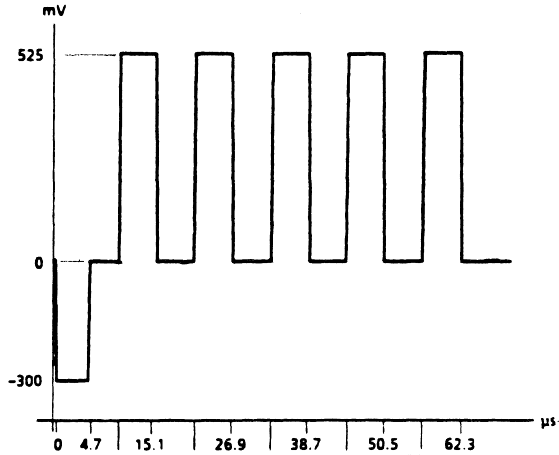
3-3. SIGNALS USED DURING ADJUSTMENT

a) RGB

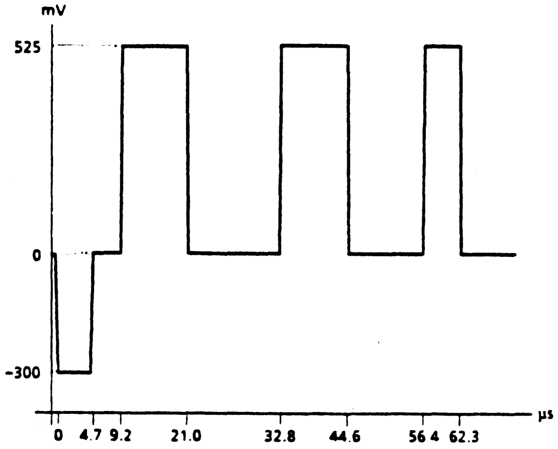
Unless otherwise specified, use the signals shown below.
Turn SYNC OFF for each of the R, G and B signals
(Feed SYNC externally).



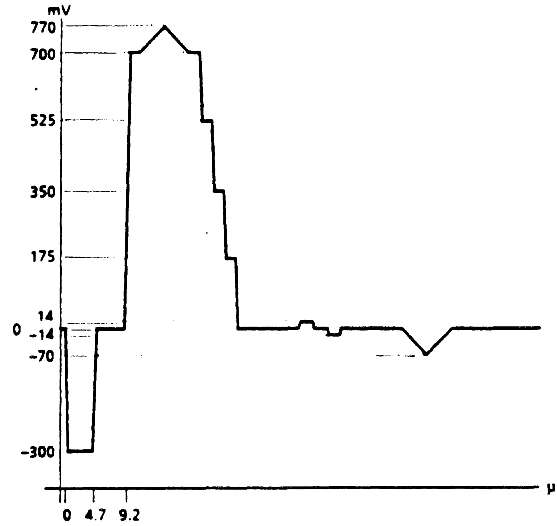
G CHANNEL



B CHANNEL



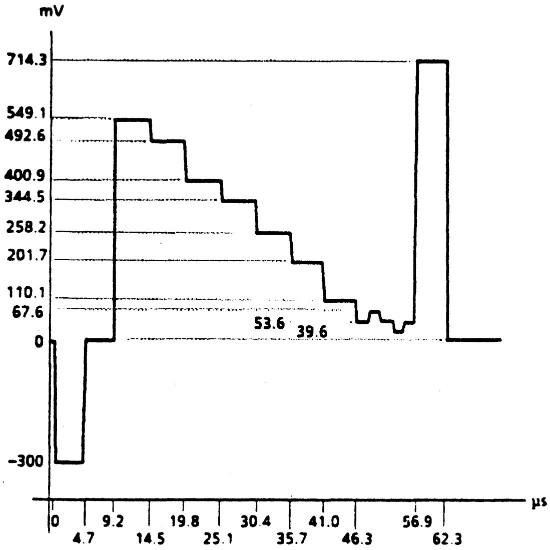
R CHANNEL



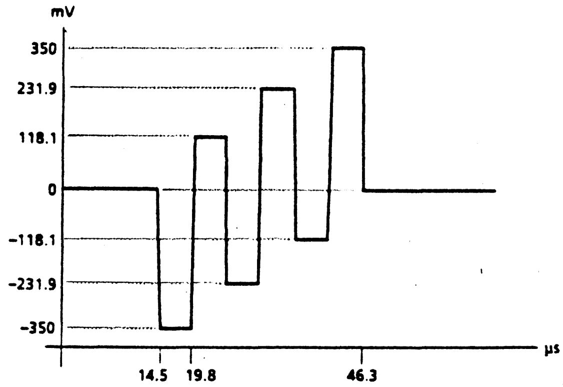
ALL CHANNELS (LEVEL REFERENCE)

b) Y/Pr/Pb

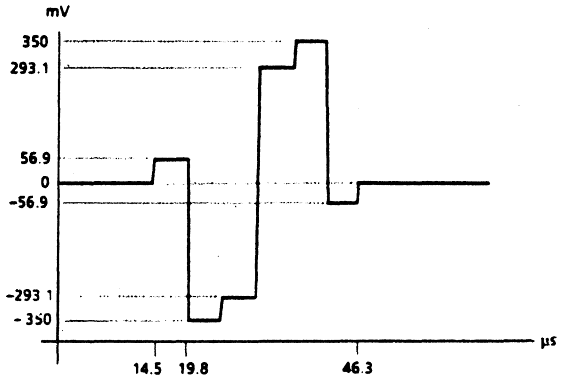
Unless otherwise specified, use the signals shown below.



Y CHANEL



PB(Pb) CHANNEL



PR(Pr) CHANNEL

c) YC358

Unless otherwise specified, use the following signals.
(100% white, 75% color bar)

Y: 1Vp-p (75 Ω)

SYNC: 0.286 Vp-p

VIDEO: 0.714 Vp-p

C: BURST 0.286 Vp-p (75 Ω)

d) U-MATIC

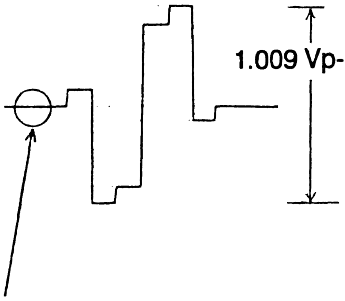
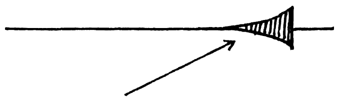
Unless otherwise specified, use the following signals.

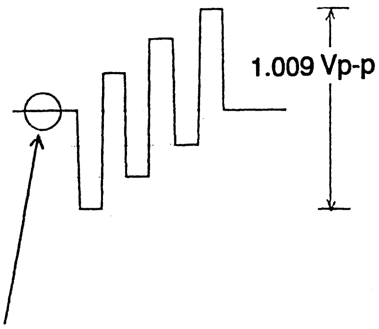
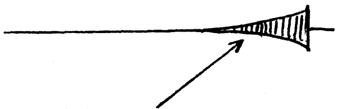
U-MATIC

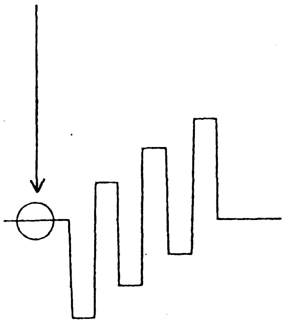
Input 100% white and 75% color bars to the U-MATIC VTR, and use U-DUB OUT in the EE mode.

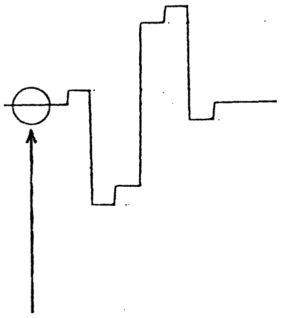
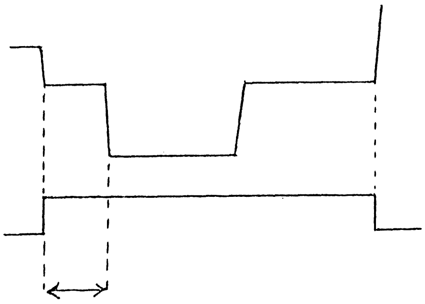
3-4. ADJUSTMENTS

1) CT1 board

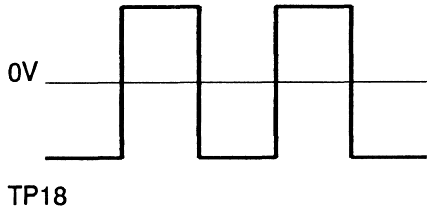
NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
1	SYNC SEP	A6-8		BETACAM	BETACAM	Composite SYNC (1st Sync Sep Out)
		A6-1				Composite SYNC (2nd Sync Sep Out)
2	AFC DC	E3-5	VC14			Approx. 3.0 VDC
3	B INPUT AMP	TP17	VR30	RGB	RGB	100% white 0.7 V p-p
			VC13	SWEEP		Flat to 5 MHz
4	R INPUT AMP	TP16	VR28	RGB		100% white 0.7 V p-p
			VC11	SWEEP		Flat to 5 MHz
5	G INPUT AMP	TP15	VR31	RGB		While setting the G level with VR29 to a point such that it is not clipped, set the 100% white to 0.7 V p-p.
			VC21	SWEEP		Flat to 5 MHz
			VR29	RGB with Sync		Clip G. Sync
6	RGB to Pr	TP13	VR24, VR25	RGB (100%)		Make the white level and the DC of the pedestal equal for a 1.009 Vp-p input.  So that this part becomes flat
		VC22		SWEEP for G only		Flat to 5 MHz
		VC11		SWEEP		Perform fine adjustment for minimum transcode error up to 5 MHz.  Make minimum

NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
7	RGB to Pb	TP14	VR26, VR45	RGB	RGB	Make the white level and the DC of the pedestal equal for a 1.009 Vp-p input.  So that this part becomes flat
			VC22	SWEEP for G only		Flat to 5 MHz
			VC11	SWEEP		Perform fine adjustment for minimum transcode error up to 5 MHz.  Make minimum
8	RGB to Y	TP26	VR27	RGB		VIDEO: 0.714 Vp-p
			VC24	SWEEP		Flat to 5 MHz
9	R OUT AMP	R OUT	VR11	RGB		100% white 0.7 Vp-p
			VC1	SWEEP		Flat to 5 MHz
10	B OUT AMP	B OUT	VR12	RGB		100% white 0.7 Vp-p
			VC2	SWEEP		Flat to 5 MHz
11	G OUT AMP	G OUT	VR13	RGB	RGB (G SYNC OFF)	100% white 0.7 Vp-p
			VC3	SWEEP		Flat to 5 MHz
12	G SYNC			G signal without SYNC	RGB G SYNC ON	SYNC approx. 0.3 Vp-p
13	YNR 1		VR18			Center YNR : Y-Noise Reduction

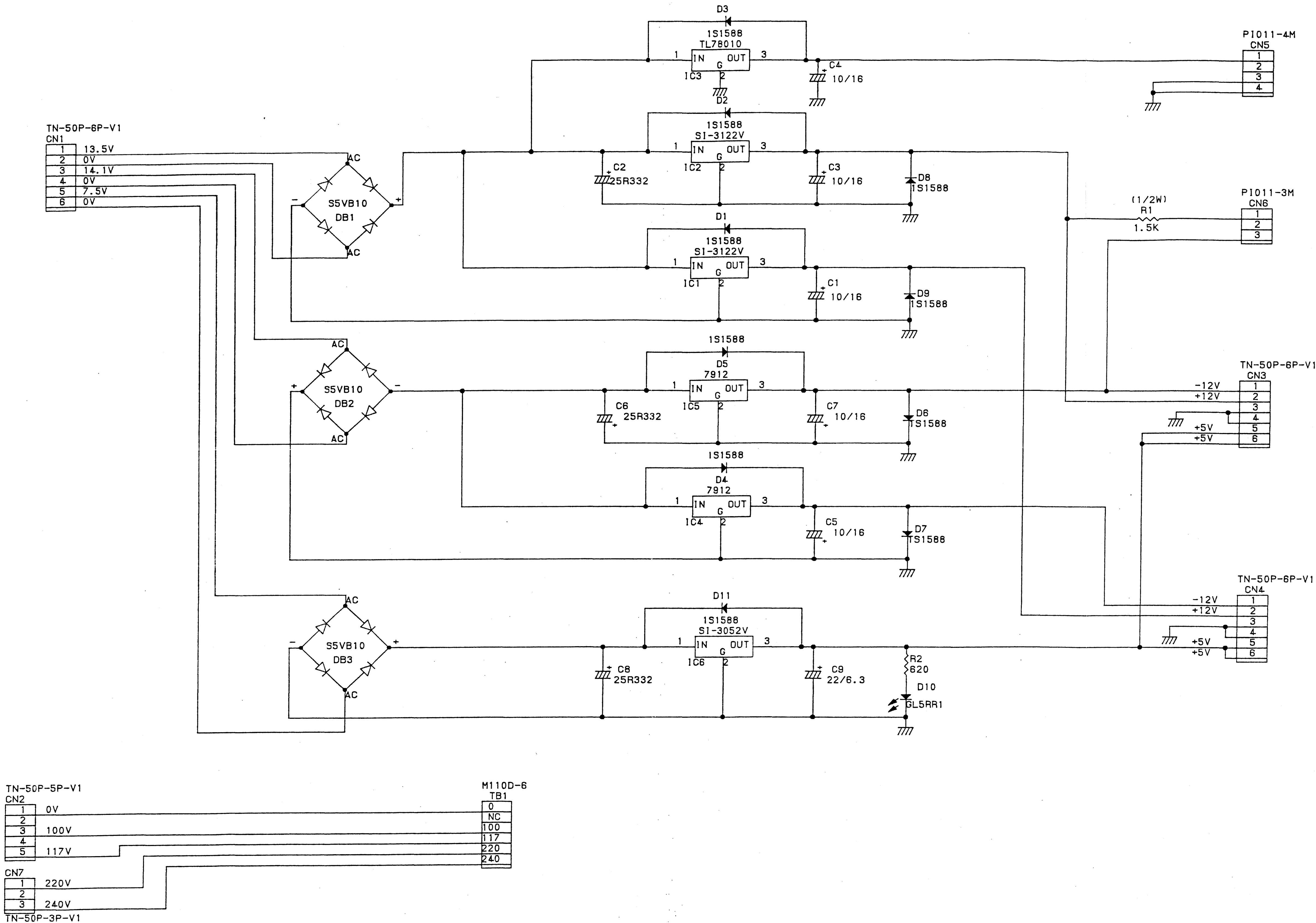
NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
14	Y INPUT AMP	TP38	VR19	BETACAM	BETACAM	2.0Vp-p
			VC7	SWEEP		Flat to 5 MHz
15	U-DUB Y OUT AMP	Q5-E	VR14	BETACAM		1.0 Vp-p
			VC4	SWEEP		Flat to 5 MHz
16	Y/C358 Y OUT AMP	Q6-E	VR15	BETACAM		2.0 Vp-p
			VC5	SWEEP		Flat to 5 MHz
17	BETACAM Y OUT AMP	Q7-E	VR16	BETACAM		2.0 Vp-p
			VC6	SWEEP		Flat to 5 MHz
18	YNR 2			BETACAM	BETACAM YNR HARD/ SOFT	Confirm that the rising characteristics change at HARD/SOFT
19	Settings	VR42 VR43				Leave VR42 and VR43 at the center position until the completion of adjustments.
20	Pb OUTPUT AMP	Q29-E	VR22	BETACAM	BETACAM	1.4 Vp-p
			VC10	SWEEP		Flat to 5 MHz
21	Pb BLACK LEV. BAL		VR23	BETACAM		Adjust BLACK LEV BAL. so that this part is flat 
22	Pr OUTPUT AMP	Q26-E	VR20	BETACAM		1.4 Vp-p (Pr SYNC OFF)
			VC9	SWEEP		Flat to 5 MHz

NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
23	Pr BLACK LEV.BAL.		VR21	BETACAM		Adjust BLACK LEV BAL. (Pr SYNC OFF)  so that this part is flat
24	Pr SYNC		VR46			Adjust BLACK LEV BAL when Pr SYNC is applied. Also, confirm that SYNC LEV is approx. 1.2 Vp-p. (Pr SYNC ON)
25	Y INPUT AMP	TP1	VR3	BETACAM	BETACAM	While setting the VIDEO signal with VR2 to a point such that it is not clipped, set to 0.7 V p-p.
			VR2			Adjust so that SYNC only is clipped.
26	Y, Pr to R	R OUT	VR4			Correct R signal waveform
			VR5			100% white 0.7 Vp-p
27	Y, Pb to B	B OUT	VR6			Correct B signal waveform
			VR7			100% white 0.7 Vp-p
28	Y,Pr,Pb to G	G OUT	VR8, VR9, VR10			Correct G signal waveform 100% white 0.7 Vp-p
29	U-MATIC EQ, ADJ.	TP31	VR17	U-MATIC	U-MATIC	Adjust for the optimum waveform (normally fully left).
30	U-MATIC Y INPUT AMP		VR41			1 Vp-p
31	COLOR BLANK PULSE	TP31, IC38-9	VR32	BETACAM	BETACAM	Adjust so that the position of the color blanking pulse is as shown below. 

2) CT2 board

NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
1	Setting		VR39			Set the VTR CHROMA LEV VR to the center position and leave it there until the adjustments on the CT2 board have been completed.
2	C358 OUTPUT LEV	Q24-E	VR8	Y/C358	Y/C358	Burst 0.572 Vp-p
3	COMPOSITE C OUT	Q25-E	VR9			Burst 0.572 Vp-p. Adjust VR9 to keep the luminance waveform characteristics. (Observe COMPOSITE VIDEO OUT with the vectorscope, and adjust VR8 to obtain suitable chroma level.)
4	SC TUNING	Q58-E	VC8		SC INT	Set VR26 to the center position, and adjust VC8 so that the amplitude of SC becomes maximum.
5	SC LEV		VR26			1.5 Vp-p
6	Burst lock VCO error	TP18	VC4	Y/C358	Y/C358	so that 0 VDC is at the center 
7	Pb DEC	TP12	VC11			Correct Pb waveform.
9	Pb LEV	B OUT	VR19 (VC11)			Correct B waveform. (Turn VR20 fully left.)
10	Pr DEC	TP15	VR35 VC9			Correct Pr waveform. (Set VR35 to center.)
11	Pr LEV	R OUT	VR29 (VC9)			Correct R waveform. (Turn VR28 fully left.)
12	Encode carrier balance	VIDEO OUT	VR24, VR25	BETACAM	BETACAM	so that carrier leakage is minimum
13	Encode Pr, Pb LEV		VR22 VR23			While checking with the vectorscope, perform coarse adjustment of the Pr and Pb levels
14	BURST LEV		VR16			While checking with the vectorscope, adjust the Burst level.
15	BURST PHASE Pr,Pb 90°		VR21 VC7			Adjust burst phase with VR27. Set Pr and Pb 90° phase with VC7.

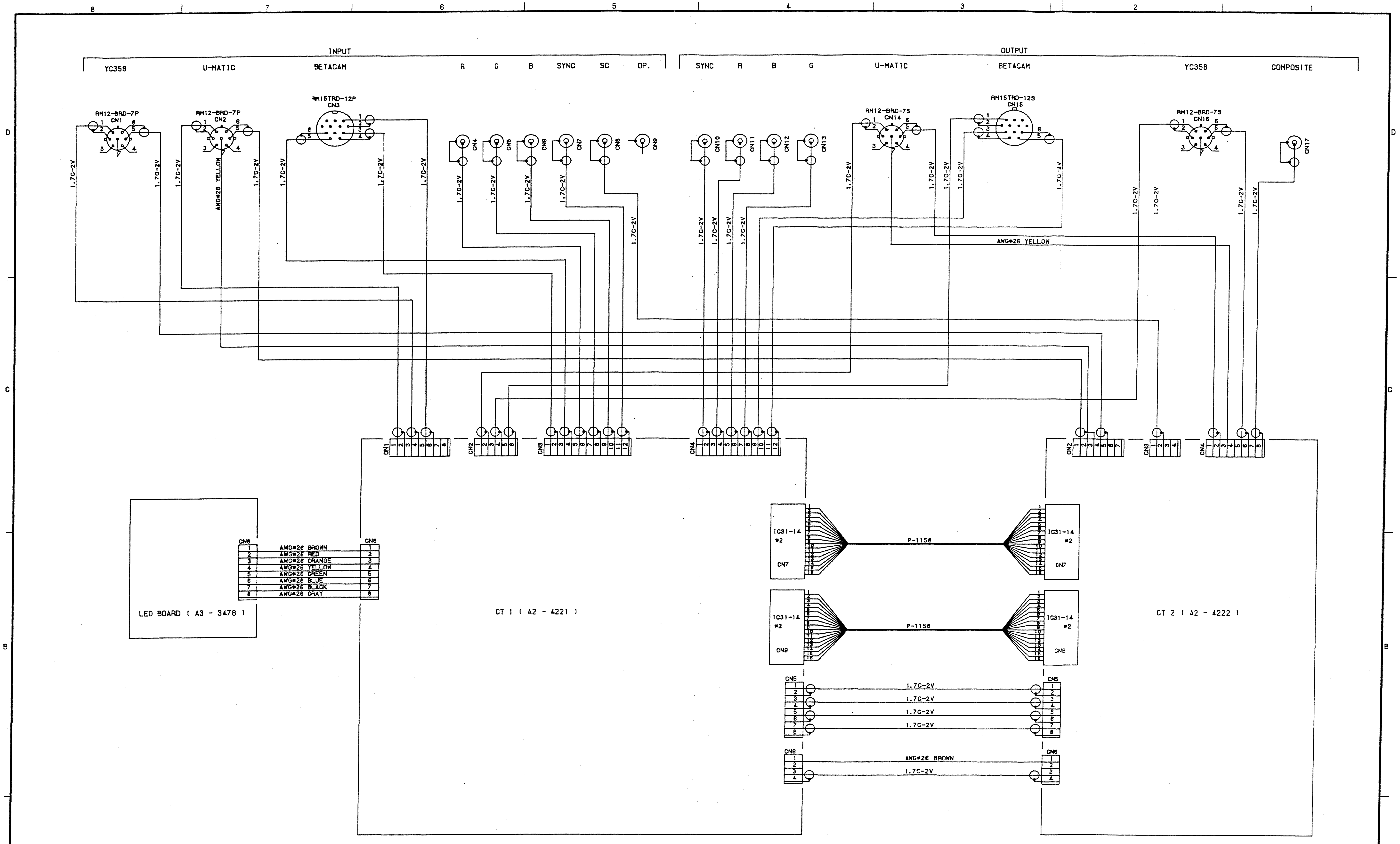
NO	ITEM	CHECK POINT	ADJUSTOR	SIGNAL	MODE	ADJUSTMENTS
16	ENC Pr,Pb LEV		VR22 VR23			While checking with the vectorscope, adjust the Pr and Pb levels.
17	Setting		VR11 VR12 VR13 VR14 VR15 VR36			Set to roughly the center position.
18	U-matic Color lock	TP33	VC13 VR36 VR15	U-MATIC	U-MATIC	While checking the color lock with RGB OUT, perform ajdustment so thet TP23 is approx. 2.2 VDC when TP33 is 0VDC. (After performing adjustment, turn the power switch ON and OFF repetitively and confirm that the color lock remains.)
19	Converter balance	VIDEO OUT	VR 11 VR12 VR13 VR14			Using the vectorscope, perform adjustment so that the dots converge, then using the monitor perform adjustment so that beat noise becomes minimum.
20	Converter LEV. PHASE	VIDEO OUT RGB OUT	VL2 VL3 VC16 VC17 VR38			Using the vectorscope, perform adjustments so that the dots converge, envelope becomes optimum, chroma level is maximum and RGB are correctly obtained.
21	U-MATIC C OUT LEV.	Q8-E	VR1	Y/C358	Y/C358	0.9Vp-p



REVISION

DESIGNED	CHECKED	APPROVED	TITLE
Masanori W	T. Horiyama	I. Saito	POWER PCB
DATE			DRAWING NO.
JAN. · 25 · 1988			A2 - 4223 - 3

FOR. A COMPANY LIMITED



REVISION	DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
	Masanori W	T.Honyama	I. Saito	CT600 WIRING (SIGNAL)
	DATE			DRAWING NO.
	JAN. · 6 · 1988			A2 - 4224A - 1/2 - 5

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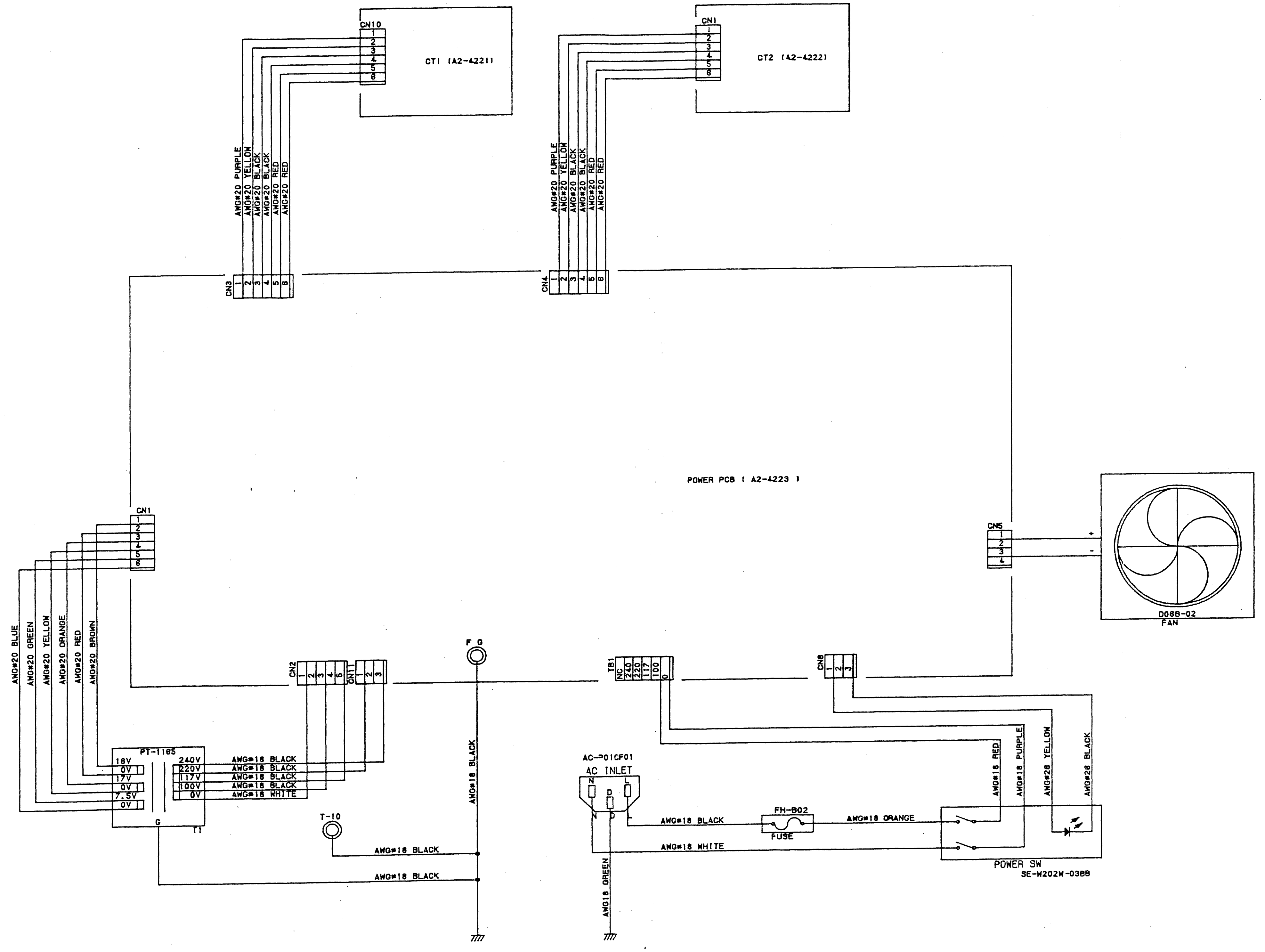

REVISION

DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Horiyama	I. Saito	CT600 WIRING (POWER)
DATE			DRAWING NO.
JAN. · 25 · 1988			A2 - 4224A - 2/2 - 5

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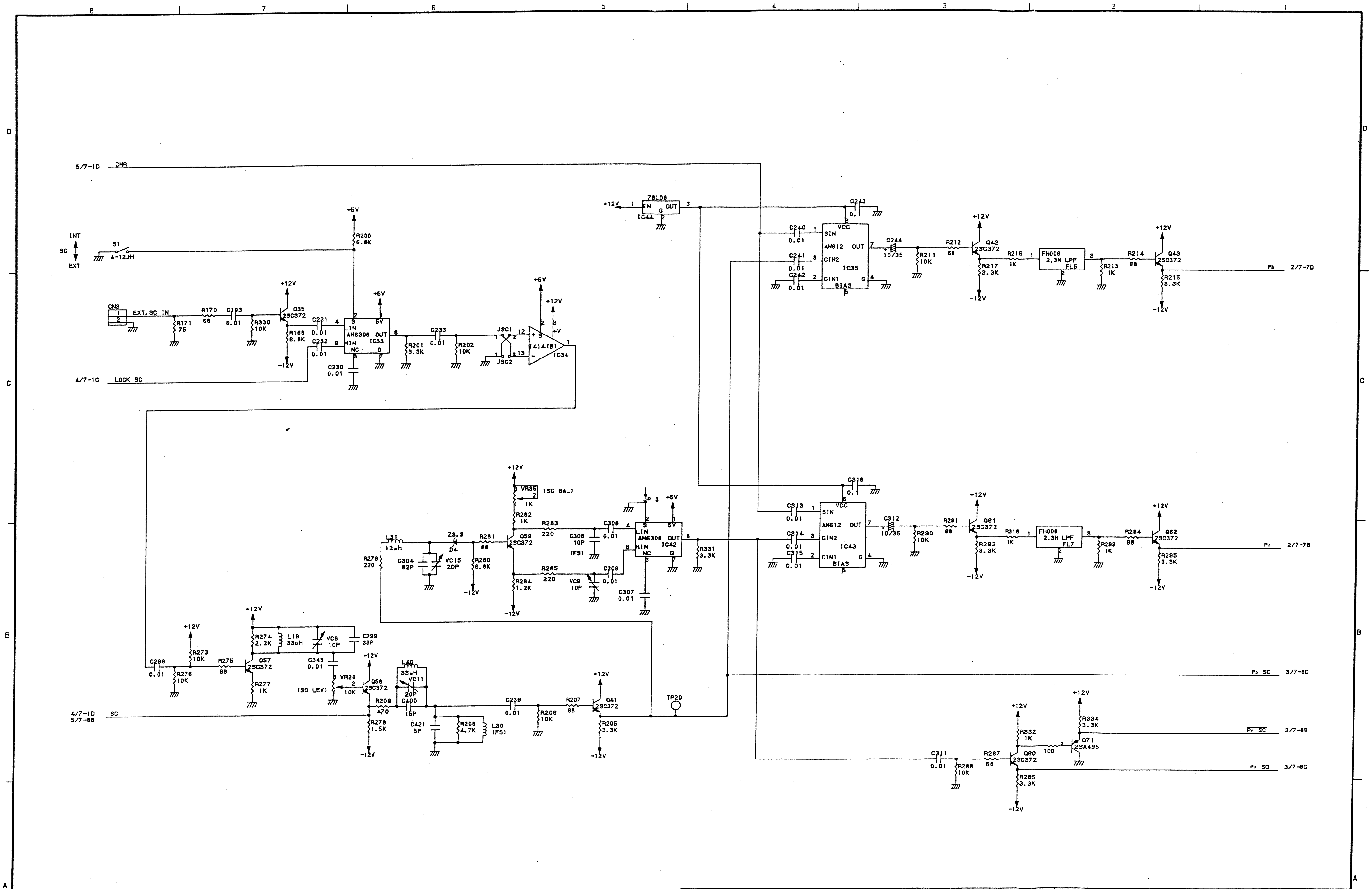

REVISION	DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
	Masanori	W.T. Hongawa	I. Saito	CT 2 (DEMODULATOR1)
	DATE			DRAWING NO.
	DEC. · 17 · 1987			A2 - 4222 - 1/6 - 3

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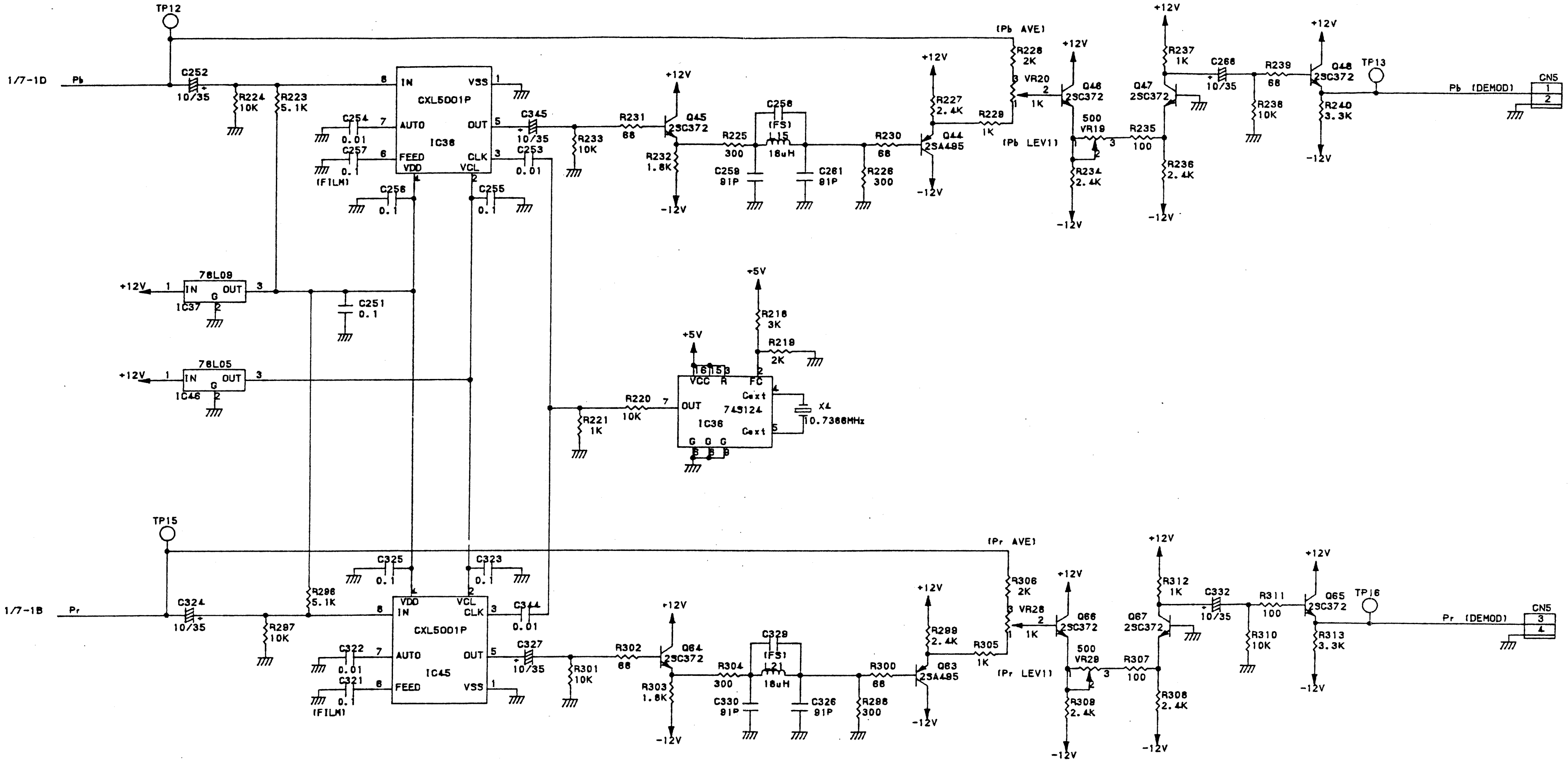

DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
Masanori	W.T. Hoyama	I. Saito	CT 2 (DEMODULATOR2)
DATE			DRAWING NO.
DEC. · 18 · 1987			A2 - 4222 - 2/6 - 3

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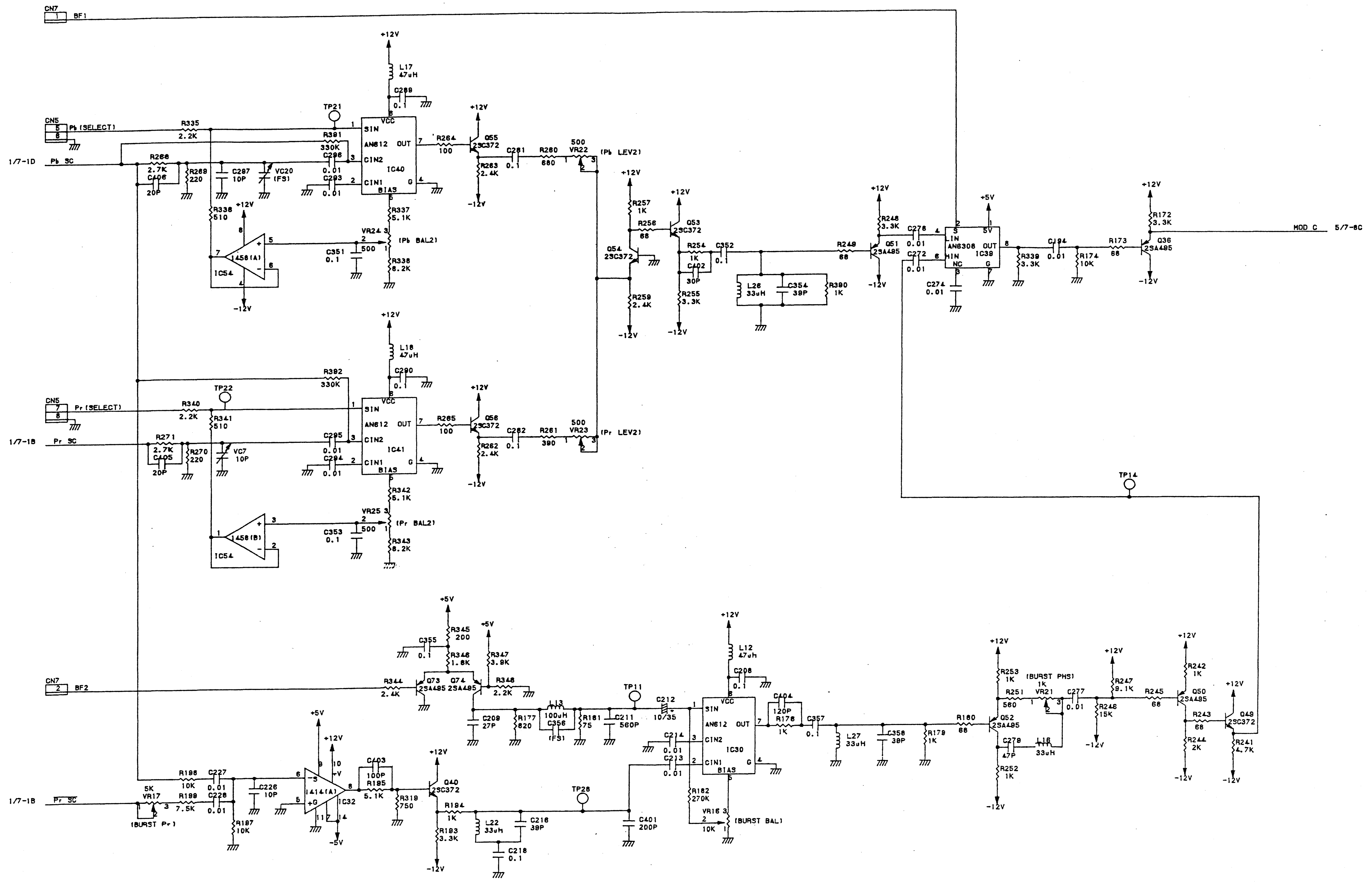

REVISION		DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
		Masanori W.	T. Hayama	I. Saito	CT 2 (MODULATOR)
		DATE			DRAWING NO.
		DEC. · 17 · 1987			A2 - 4222 - 3/6 - 3

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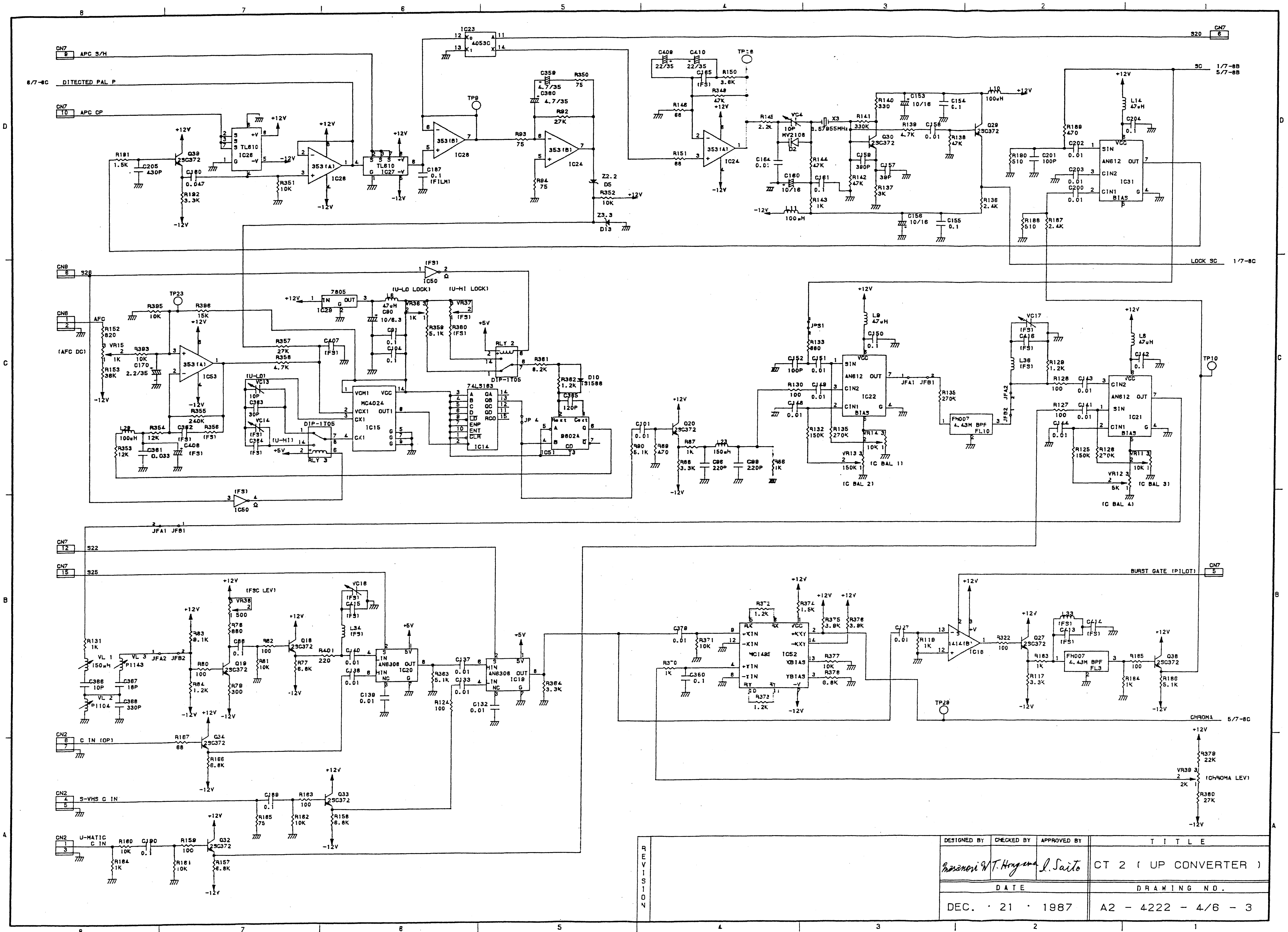

DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Horigome	S. Saito	CT 2 (UP CONVERTER)
DATE			DRAWING NO.
DEC. · 21 · 1987			A2 - 4222 - 4/6 - 3

REVISION

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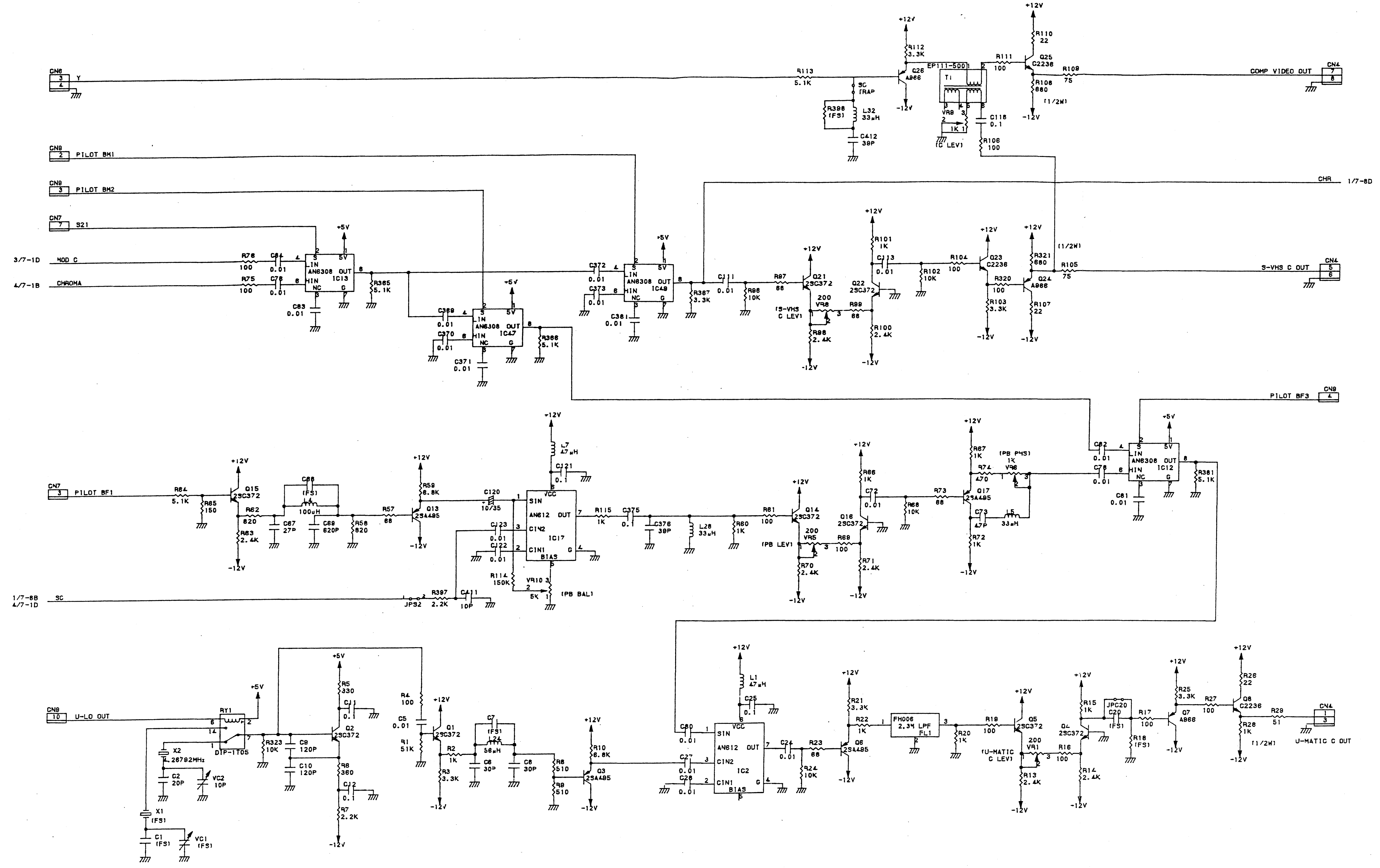
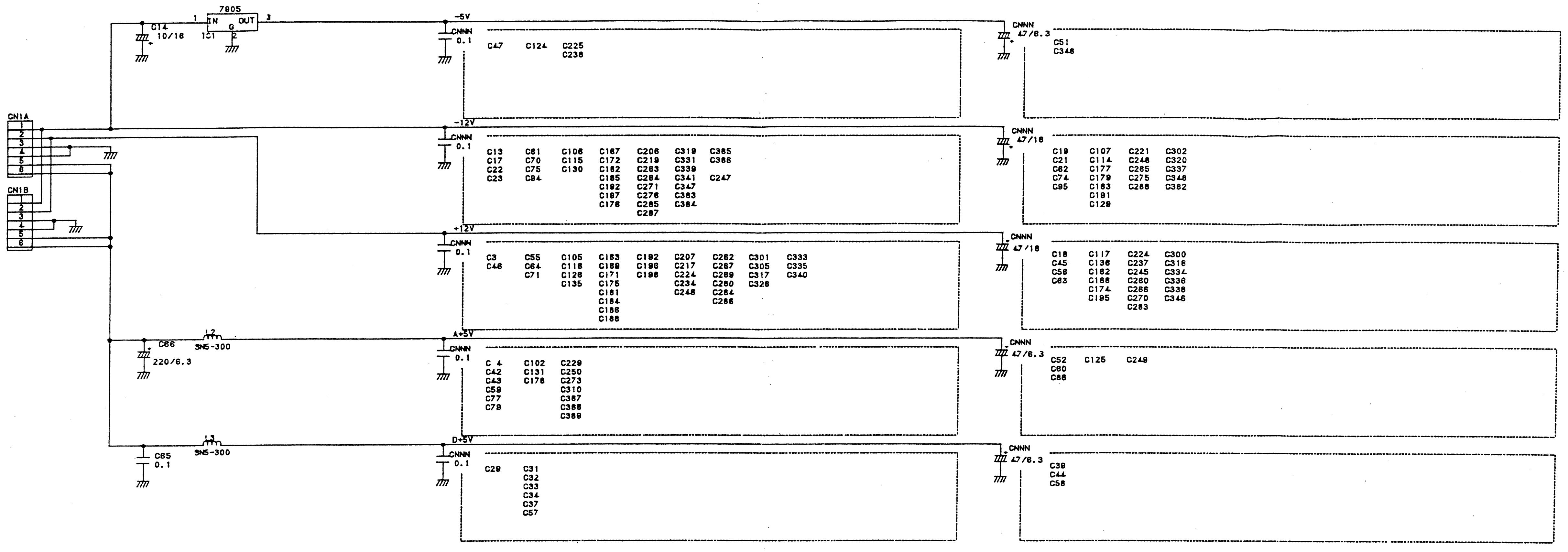

CN6 3 4 Y
R113 5.1K
+12V R112 3.3K Q26 A966 -12V
SC TRAP R398 (FS) L32 33μH C412 39P
EP111-5001 T1 VR8 1K (C LEV)
C118 0.1 R106 100
+12V R110 22 R111 100 Q25 C2238 R108 680 (1/2W) -12V
R109 75 COMP VIDEO OUT CN4 7 8
CN8 2 PILOT BK1
CN9 3 PILOT BK2
CN7 7 S21
CHR 1/7-8D
3/7-1D MOD C
4/7-1B CHROMA
R76 100 C84 0.01 R75 100 C78 0.01
AN6308 IC13 C83 0.01 R365 5.1K
C369 0.01 C370 0.01 AN6308 IC47 C371 0.01 R366 5.1K
C372 0.01 C373 0.01 AN6308 IC48 C361 0.01 R367 3.3K
C111 0.01 R96 10K R97 68 Q21 2SC372 200 VR6 (S-VHS C LEV) R98 2.4K R99 68
R101 1K C113 0.01 Q22 2SC372 R100 2.4K
R102 10K R104 100 Q23 C2236 R103 3.3K R320 100
R321 680 (1/2W) Q24 A966 R107 22 R105 75
S-VHS C OUT CN4 5 6
PILOT BF3 CN9 4
CN7 3 PILOT BF1
R64 5.1K R65 150 Q15 2SC372 R62 820 R63 2.4K
C88 (FS) L4 100μH C87 27P C89 620P R58 820 R57 68
R59 6.8K Q13 2SA495
C120 10/35 L7 47μH C121 0.1
AN612 IC17 SIN VCC OUT CIN2 CIN1 G BIAS
C123 0.01 C122 0.01 R114 150K VR10 5K (PB BAL)
R115 1K C375 0.1 C376 39P L28 33μH R60 1K R61 100
Q14 2SC372 200 VR5 (PB LEV) R70 2.4K R69 100
R66 1K C72 0.01 Q16 2SC372 R71 2.4K R68 10K
R73 68 R67 1K R74 470 (PB PHS) 1K VR6 Q17 2SA495 C73 47P L5 33μH R72 1K
C82 0.01 C79 0.01 AN6308 IC12 C81 0.01 R381 5.1K
1/7-8B 4/7-1D SC JPS2 R397 2.2K C411 10P
CN8 10 U-LO OUT
RY1 DTP-1T05 X2 4.26792MHz C2 20P VC2 10P X1 (FS) C1 (FS) VC1 (FS)
R323 10K C9 120P C10 120P
R5 330 C11 0.1 Q2 2SC372 R8 360 C12 0.1 R7 2.2K
R4 100 C5 0.01 R1 51K Q1 2SC372 R2 1K R3 3.3K
C7 (FS) L24 56μH C6 30P C8 30P R6 510 R9 510
R10 6.8K Q3 2SA495
L1 47μH C25 0.1 C30 0.01 C27 0.01 C28 0.01
AN612 IC2 C24 0.01 R24 10K R23 68
R21 3.3K R22 1K Q6 2SA495
FH006 2.3M LPF FL1 R20 1K R19 100
Q5 2SC372 200 VR1 (U-MATIC C LEV) R13 2.4K R16 100
R15 1K Q4 2SC372 R14 2.4K
JPC20 C20 (FS) R18 (FS) R17 100
R25 3.3K Q7 A966 R27 100 R26 22 Q8 C2236 R28 1K (1/2W) R29 51
U-MATIC C OUT CN4 1 3

DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
Masanori	W.T. Horiyama	I. Saito	CT 2 (DOWN CONVERTER)
DATE			DRAWING NO.
DEC. · 24 · 1987			A2 - 4222 - 5/6 - 3

REVISION

FOR.A COMPANY LIMITED


7905
1
IN
OUT
3
G
2
IC1
C14
10/16
CN1A
1
2
3
4
5
6
CN1B
1
2
3
4
5
6
-5V
CNNN
0.1
C47 C124 C225 C238
CNNN
47/6.3
C51 C348
-12V
CNNN
0.1
C13 C17 C22 C23 C61 C70 C75 C94 C106 C115 C130 C167 C172 C182 C185 C192 C197 C176 C206 C219 C263 C264 C271 C276 C285 C287 C319 C331 C339 C341 C347 C363 C364 C365 C366 C247
CNNN
47/16
C19 C21 C62 C74 C95 C107 C114 C177 C179 C183 C191 C129 C221 C248 C265 C275 C288 C302 C320 C337 C348 C382
+12V
CNNN
0.1
C3 C48 C55 C64 C71 C105 C116 C126 C135 C163 C169 C171 C175 C181 C184 C186 C188 C192 C196 C198 C207 C217 C224 C234 C248 C262 C267 C269 C280 C284 C286 C301 C305 C317 C326 C333 C335 C340
CNNN
47/16
C18 C45 C56 C63 C117 C136 C162 C166 C174 C195 C224 C237 C245 C260 C266 C270 C283 C300 C318 C334 C336 C338 C346
L2
SN5-300
C66
220/6.3
A+5V
CNNN
0.1
C 4 C42 C43 C59 C77 C79 C102 C131 C178 C229 C250 C273 C310 C387 C388 C389
CNNN
47/6.3
C52 C80 C86 C125 C249
L3
SN5-300
C65
0.1
D+5V
CNNN
0.1
C29 C31 C32 C33 C34 C37 C57
CNNN
47/6.3
C39 C44 C58

CN1 TN-50P-6P-V1
1. -12V
2. +12V
3. GND
4. GND
5. +5V
6. +5V

CN2 PI011-7M (TO CN)
1. U MATIC C IN
2. U MATIC CFP IN
3. GND
4. S VHS C IN
5. GND
6. C IN (OP)
7. GND

CN3 PI011-4M (TO CN)
1. EXT SC IN
2. GND
3. EXT PAL P IN
4. GND

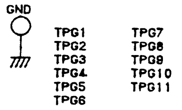
CN4 PI011-8M (TO CN)
1. U MATIC C OUT
2. U MATIC CFP OUT
3. GND
4.
5. S VHS C OUT
6. GND
7. COMP VIDEO OUT
8. GND

CN5 PI011-8M (TO CT1)
1. Pb (DEMOD)
2. GND
3. Pr (DEMOD)
4. GND
5. Pb (SELECT)
6. GND
7. Pr (SELECT)
8. GND

CN6 PI011-4M (TO CT2)
1. AFC
2. GND
3. Y
4. GND

CN7 IC31-14*2 (TO CT1)
1. BF1
2. BF2
3. PILOT BF1
4. PILOT BF2
5. BURST GATE (PILOT)
6. S20
7. S21
8. PAL P.DET P
9. APC S/H
10. APC CP
11. VD
12. S22
13. S23
14. S24
15. S25
16. GND

CN8 IC31-14*2 (TO CT1)
1. PLL HD
2. PILOT BM1
3. PILOT BM2
4. PILOT BF3
5.
6. S26
7. S27
8. S28
9.
10. U-LOW OUT
11.
12.
13.
14.
15.
16. GND



REVISION	DESIGND BY	CHECKED BY	APPROVED BY	TITLE
	Masanori W	T. Hongawa	I. Saito	CT 2 (CAPACITOR)
	DATE			DRAWING NO.
	DEC. · 15 · 1987			A2 - 4222 - 6/6 - 3

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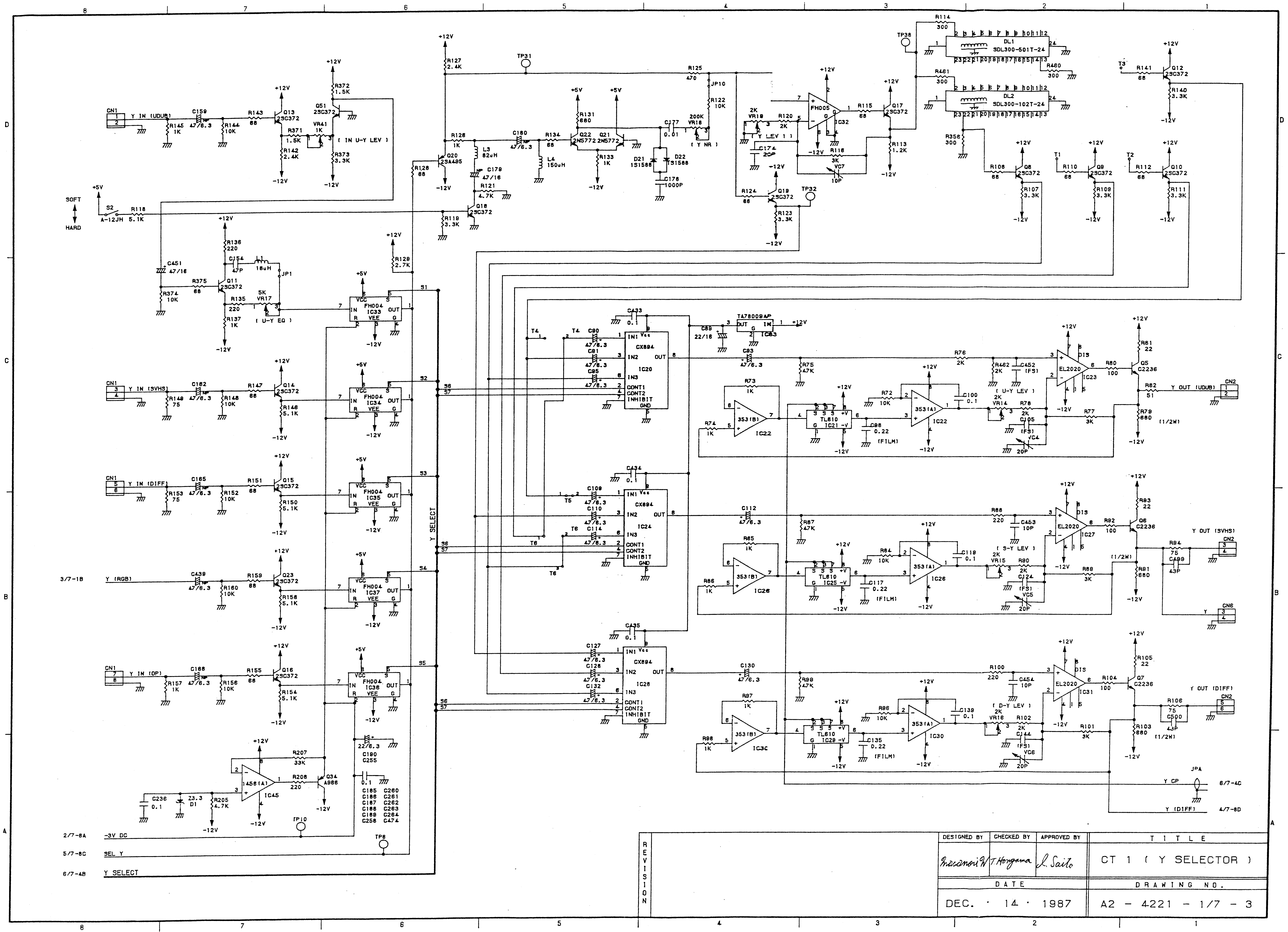

DESIGNED BY	CHECKED BY	APPROVED BY
Masamori W	T. Hongawa	I. Saito

DATE

DEC. · 14 · 1987

TITLE

CT 1 (Y SELECTOR)

DRAWING NO.

A2 - 4221 - 1/7 - 3

REVISION

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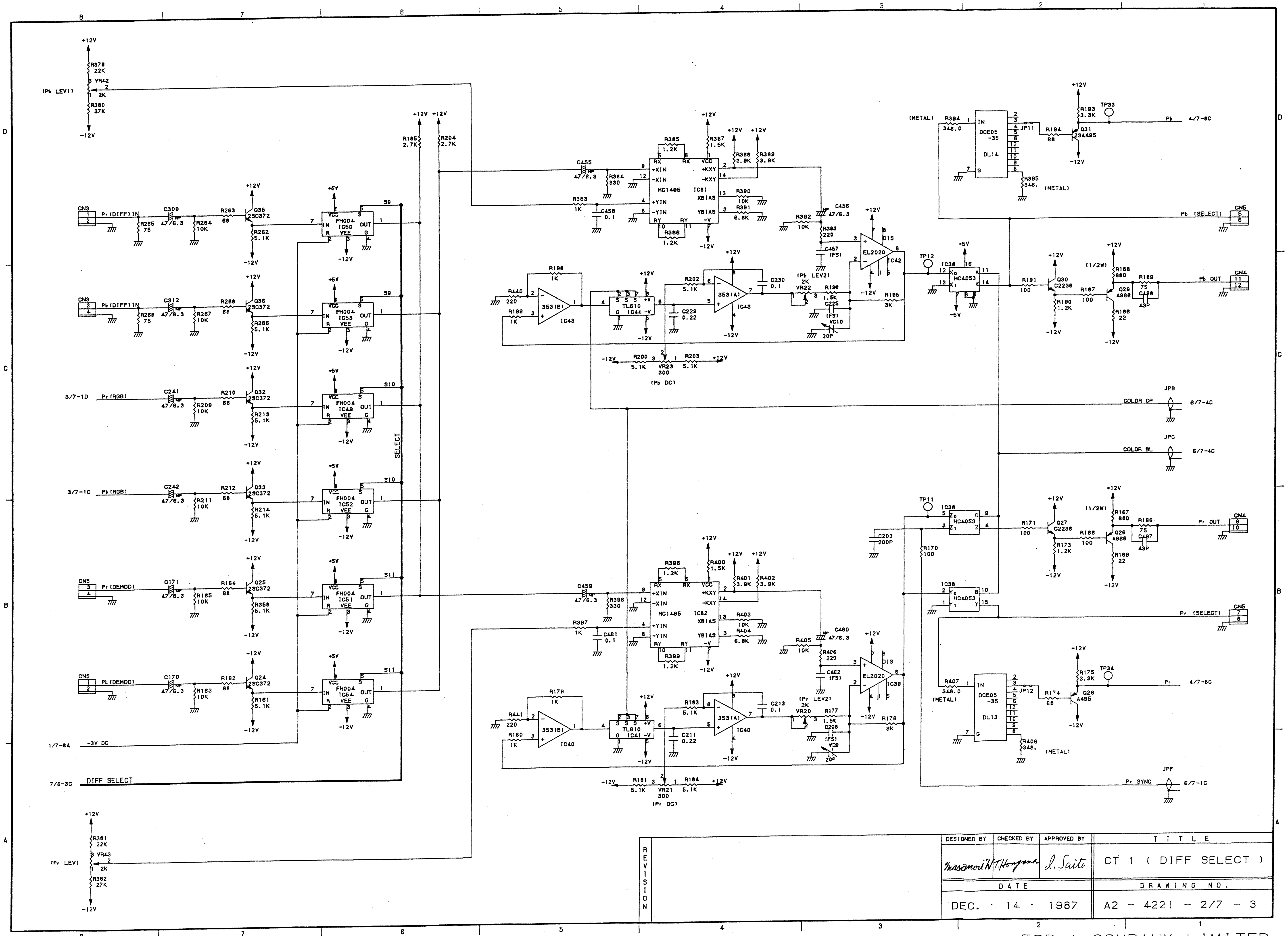

DESIGNED BY	CHECKED BY	APPROVED BY	TITLE
Masamori W.	T. Hoyama	I. Saito	CT 1 (DIFF SELECT)
DATE			DRAWING NO.
DEC. · 14 · 1987			A2 - 4221 - 2/7 - 3

REVISION

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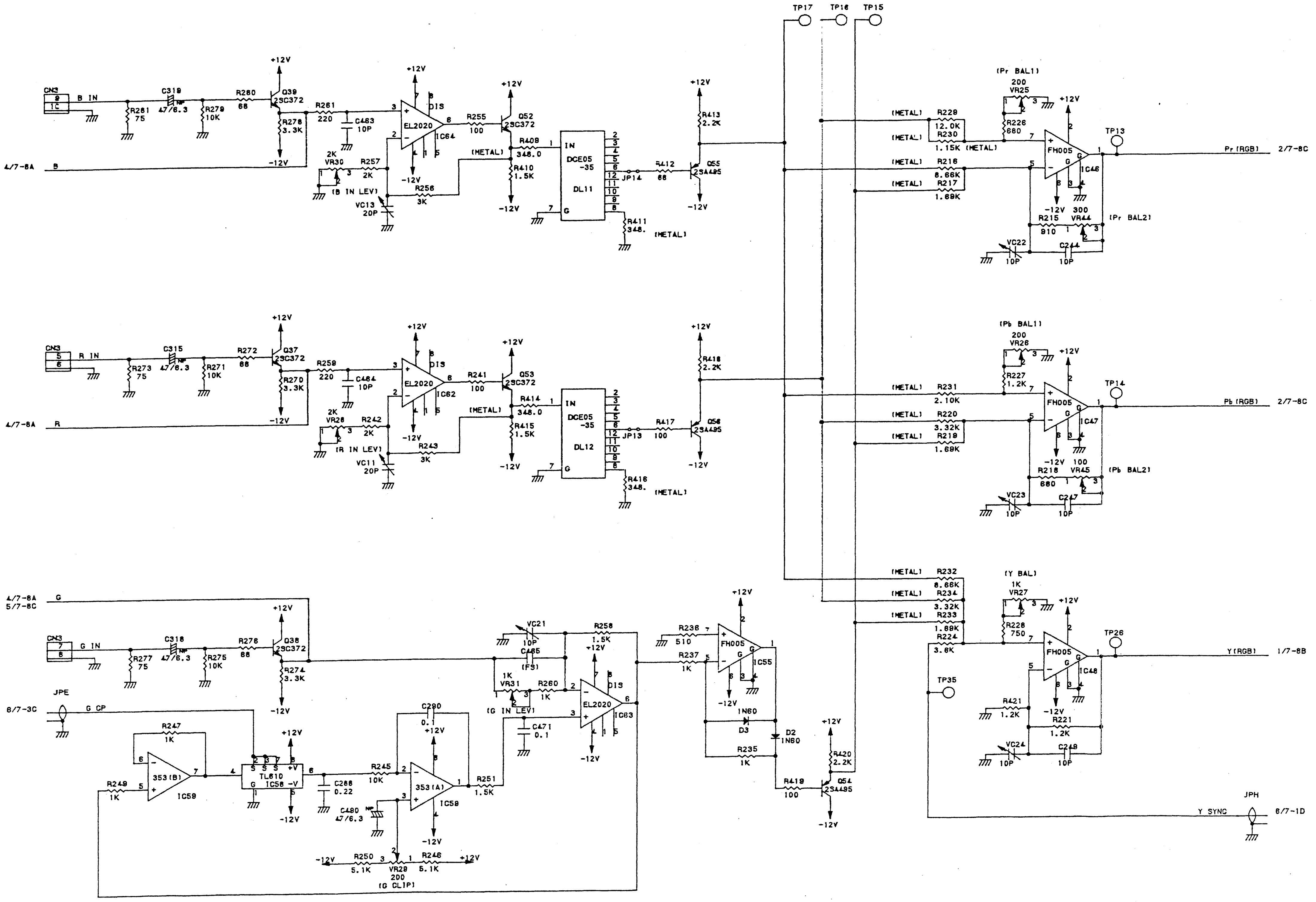
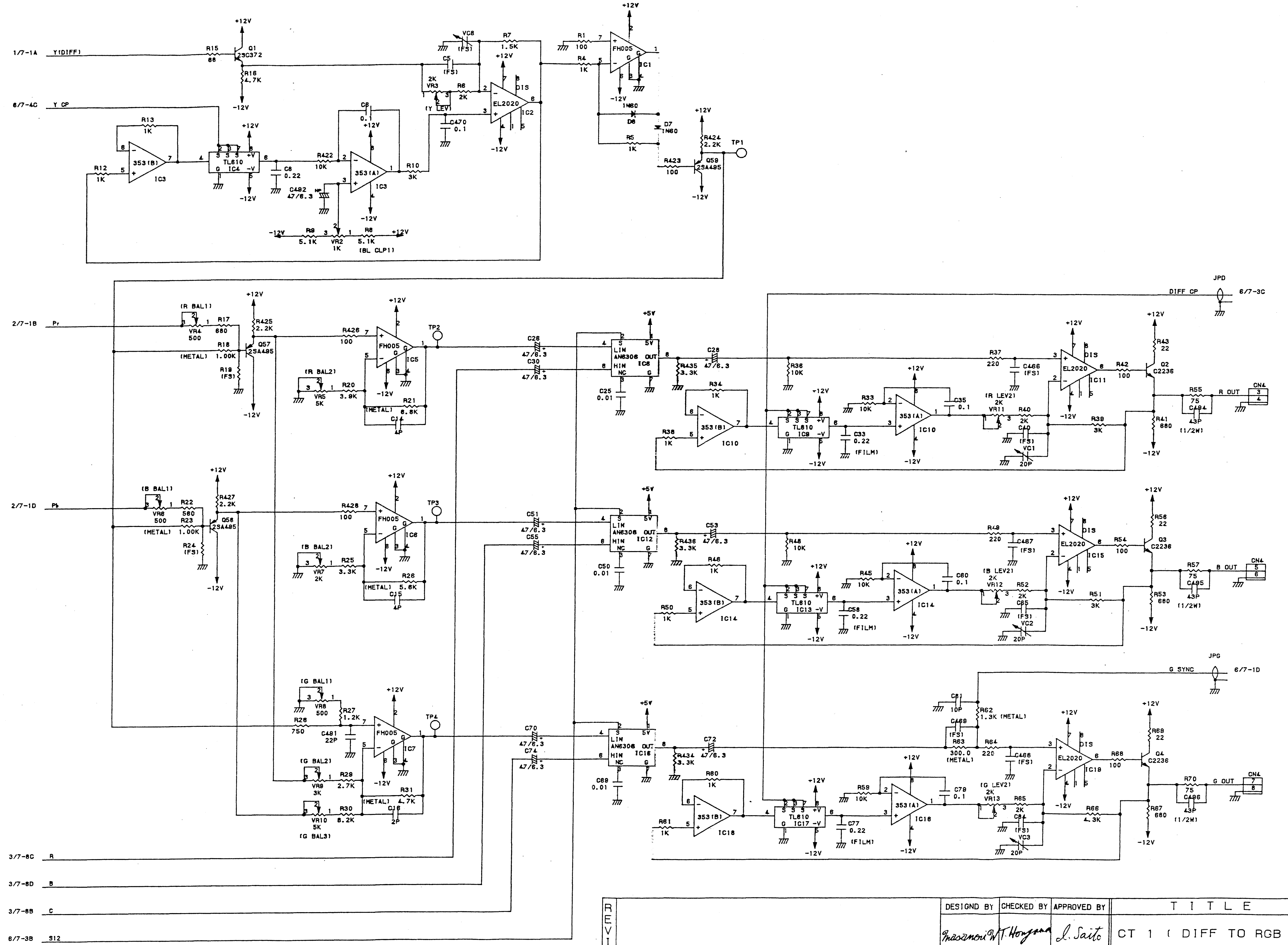


REVISION

DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Hongama	I. Saito	CT 1 (RGB TO DIFF)
DATE			DRAWING NO.
DEC. · 15 · 1987			A2 - 4221 - 3/7 - 3

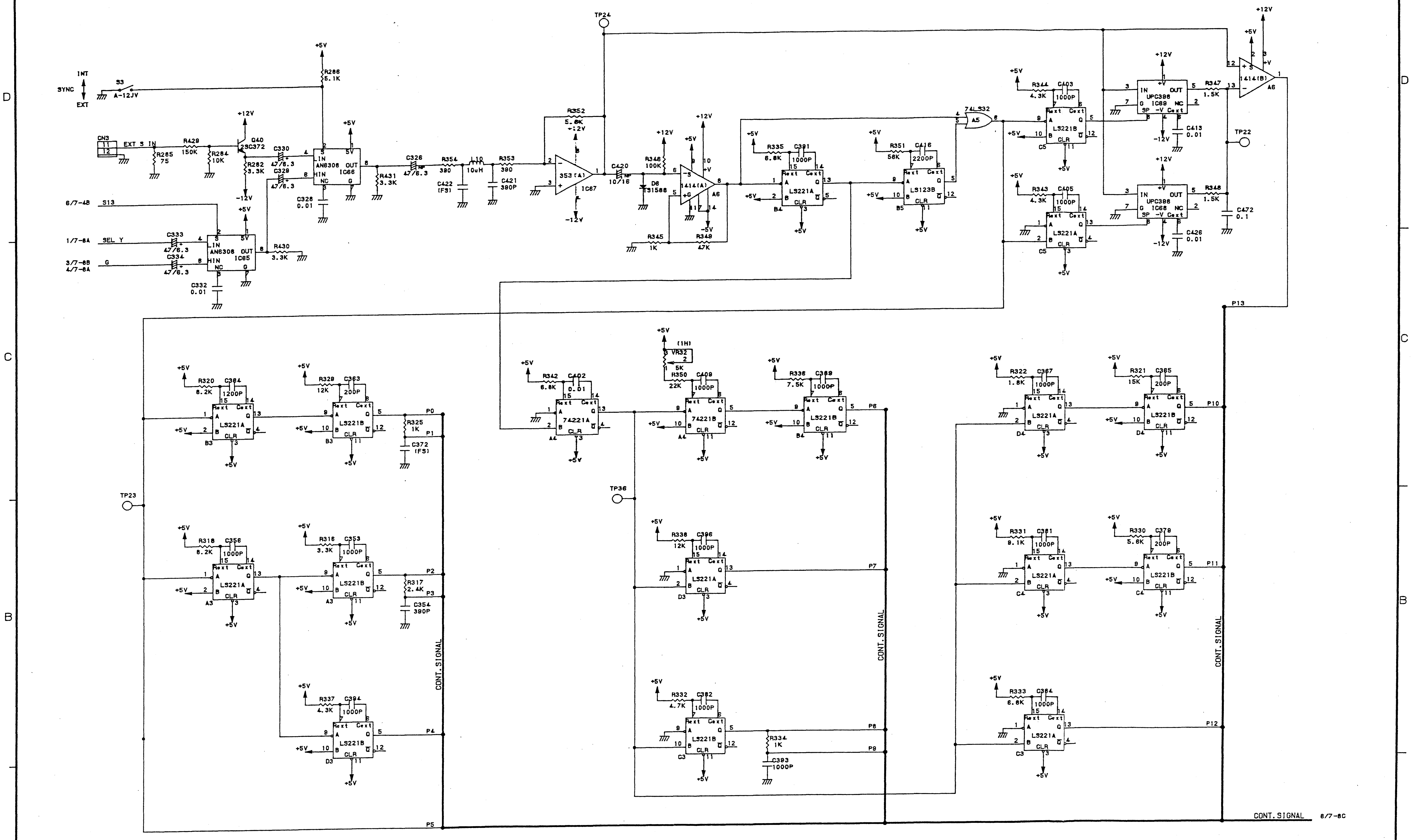
FOR. A COMPANY LIMITED



REVISION

DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Hongoma	I. Saito	CT 1 (DIFF TO RGB)
DATE			DRAWING NO.
DEC. · 15 · 1987			A2 - 4221 - 4/7 - 3

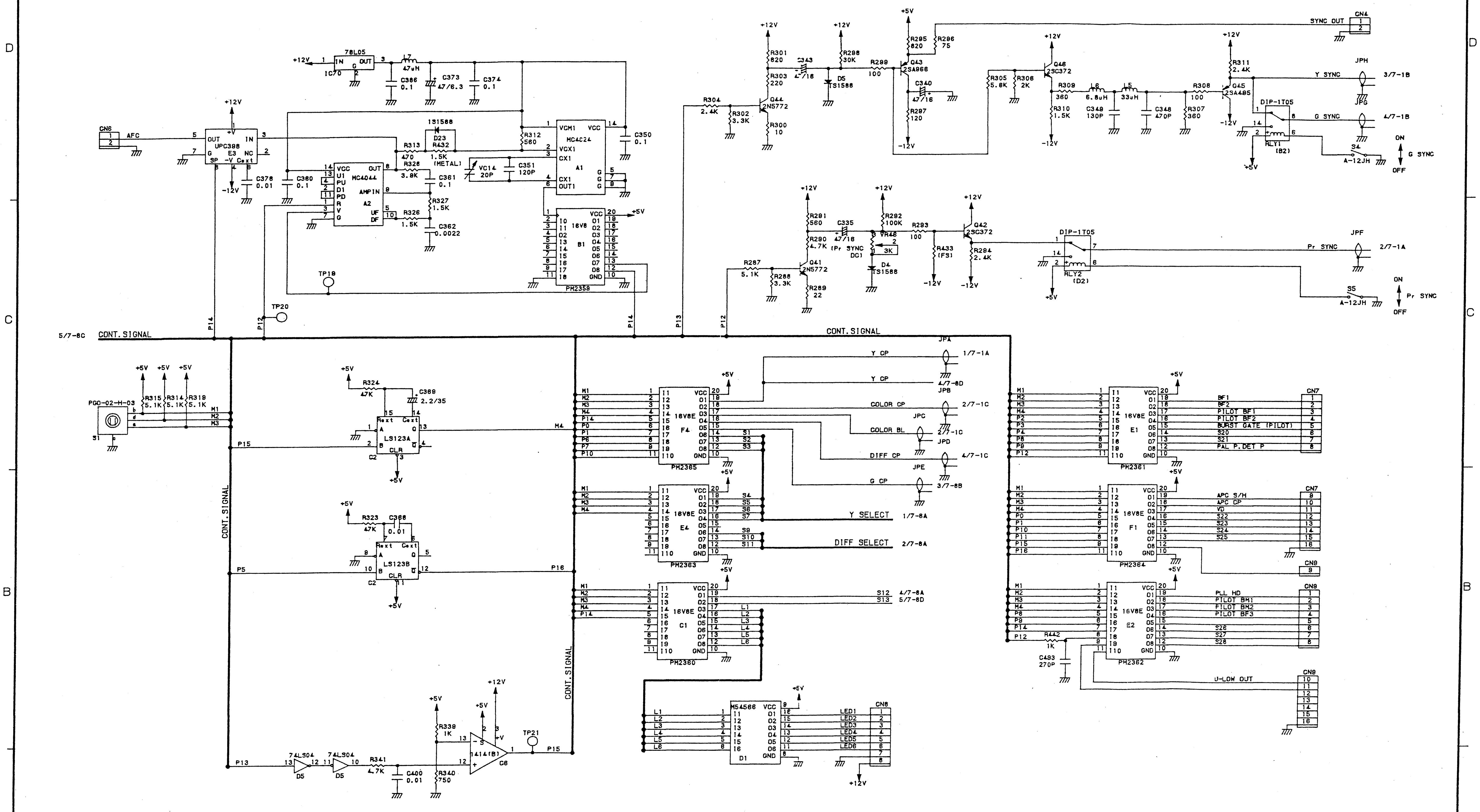
FOR. A COMPANY LIMITED



DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T Horyuma	I. Saito	CT 1 (SYNC SEP)
DATE			DRAWING NO.
DEC. · 15 · 1987			A2 - 4221 - 5/7 - 3

REVISION

FOR. A COMPANY LIMITED



DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Hongama	I. Saito	CT 1 (SYSCON)
DATE			DRAWING NO.
DEC. · 15 · 1987			A2 - 4221 - 6/7 - 3

REVISION

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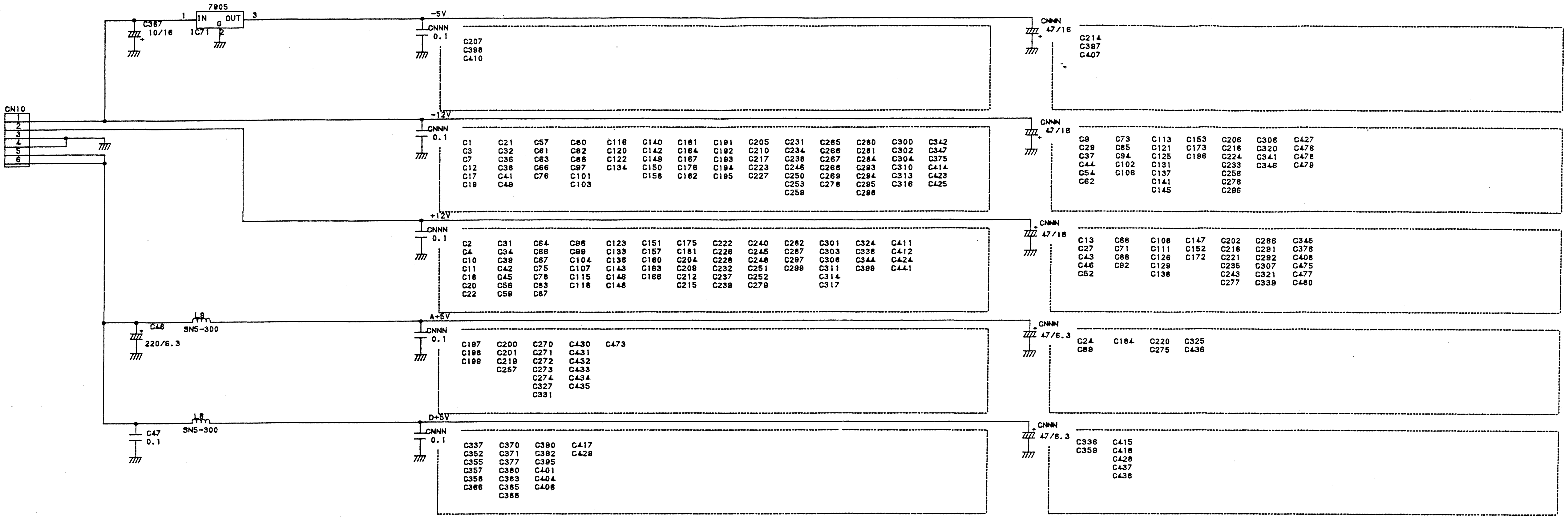

7905
1
IN
OUT
G
3
2
IC71
C387
10/16
CN10
1
2
3
4
5
6
-5V
CNNN
0.1
C207
C398
C410
CNNN
47/16
C214
C397
C407
-12V
CNNN
0.1
C1 C21 C57 C80 C116 C140 C161 C191 C205 C231 C265 C280 C300 C342
C3 C32 C61 C82 C120 C142 C164 C192 C210 C234 C266 C281 C302 C347
C7 C36 C63 C86 C122 C148 C167 C193 C217 C238 C267 C284 C304 C375
C12 C38 C66 C97 C134 C150 C176 C194 C223 C246 C268 C293 C310 C414
C17 C41 C76 C101 C158 C182 C195 C227 C250 C269 C294 C313 C423
C19 C49 C103 C253 C276 C295 C316 C425
C259 C298
CNNN
47/16
C9 C73 C113 C153 C206 C306 C427
C29 C85 C121 C173 C216 C320 C476
C37 C94 C125 C186 C224 C341 C478
C44 C102 C131 C233 C348 C479
C54 C106 C137 C256
C62 C141 C276
C145 C296
+12V
CNNN
0.1
C2 C31 C64 C96 C123 C151 C175 C222 C240 C282 C301 C324 C411
C4 C34 C66 C99 C133 C157 C181 C226 C245 C287 C303 C338 C412
C10 C39 C67 C104 C136 C160 C204 C228 C248 C297 C308 C344 C424
C11 C42 C75 C107 C143 C163 C208 C232 C251 C299 C311 C399 C441
C18 C45 C78 C115 C146 C166 C212 C237 C252 C314
C20 C56 C83 C118 C148 C215 C239 C279 C317
C22 C59 C87
CNNN
47/16
C13 C68 C108 C147 C202 C286 C345
C27 C71 C111 C152 C218 C291 C376
C43 C88 C126 C172 C221 C292 C408
C46 C92 C129 C235 C307 C475
C52 C138 C243 C321 C477
C277 C339 C480
C48
220/6.3
L9
SN5-300
A+5V
CNNN
0.1
C187 C200 C270 C430 C473
C196 C201 C271 C431
C199 C219 C272 C432
C257 C273 C433
C274 C434
C327 C435
C331
CNNN
47/6.3
C24 C184 C220 C325
C89 C275 C436
C47
0.1
L8
SN5-300
D+5V
CNNN
0.1
C337 C370 C390 C417
C352 C371 C392 C429
C355 C377 C395
C357 C380 C401
C358 C383 C404
C366 C385 C406
C388
CNNN
47/6.3
C336 C415
C359 C416
C428
C437
C438

CN1 P1011-8M (TO CN)
1.Y IN (U DUB)
2.GND
3.Y IN (S VHS)
4.GND
5.Y IN (DIFF)
6.GND
7.Y IN (OP)
8.GND

CN2 P1011-6M (TO CN)
1.Y OUT (U DUB)
2.GND
3.Y OUT (S VHS)
4.GND
5.Y OUT (DIFF)
6.GND

CN3 P1011-12M (TO CN)
1.Pr (DIFF) IN
2.GND
3.Pb (DIFF) IN
4.GND
5.R IN
6.GND
7.G IN
8.GND
9.B IN
10.GND
11.EXT S IN
12.GND

CN4 P1011-12M (TO CN)
1.SYNC OUT
2.GND
3.R OUT
4.GND
5.B OUT
6.GND
7.G OUT
8.GND
9.Pr OUT
10.GND
11.Pb OUT
12.GND

CN5 P1011-8M (TO CT2)
1.Pb (DEMOD)
2.GND
3.Pr (DEMOD)
4.GND
5.Pb (SELECT)
6.GND
7.Pr (SELECT)
8.GND

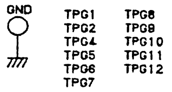
CN6 P1011-4M (TO CT2)
1.AFC
2.GND
3.Y
4.GND

CN7 IC31-14*2 (TO CT2)
1.BF1
2.BF2
3.PILOT BF1
4.PILOT BF2
5.BURST GATE (PILOT)
6.S20
7.S21
8.PAL P.DET P
9.APC S/H
10.APC CP
11.VD
12.S22
13.S23
14.S24
15.S25
16.GND

CN8 P1011-8M (TO LED BOARD)
1.LED1
2.LED2
3.LED3
4.LED4
5.LED5
6.LED6
7.GND
8.+12V

CN9 IC31-14*2 (CO CT2)
1.PLL HD
2.PILOT BM1
3.PILOT BM2
4.
5.
6.S26
7.S27
8.S28
9.
10.U-LOW OUT
11.
12.
13.
14.
15.
16.GND

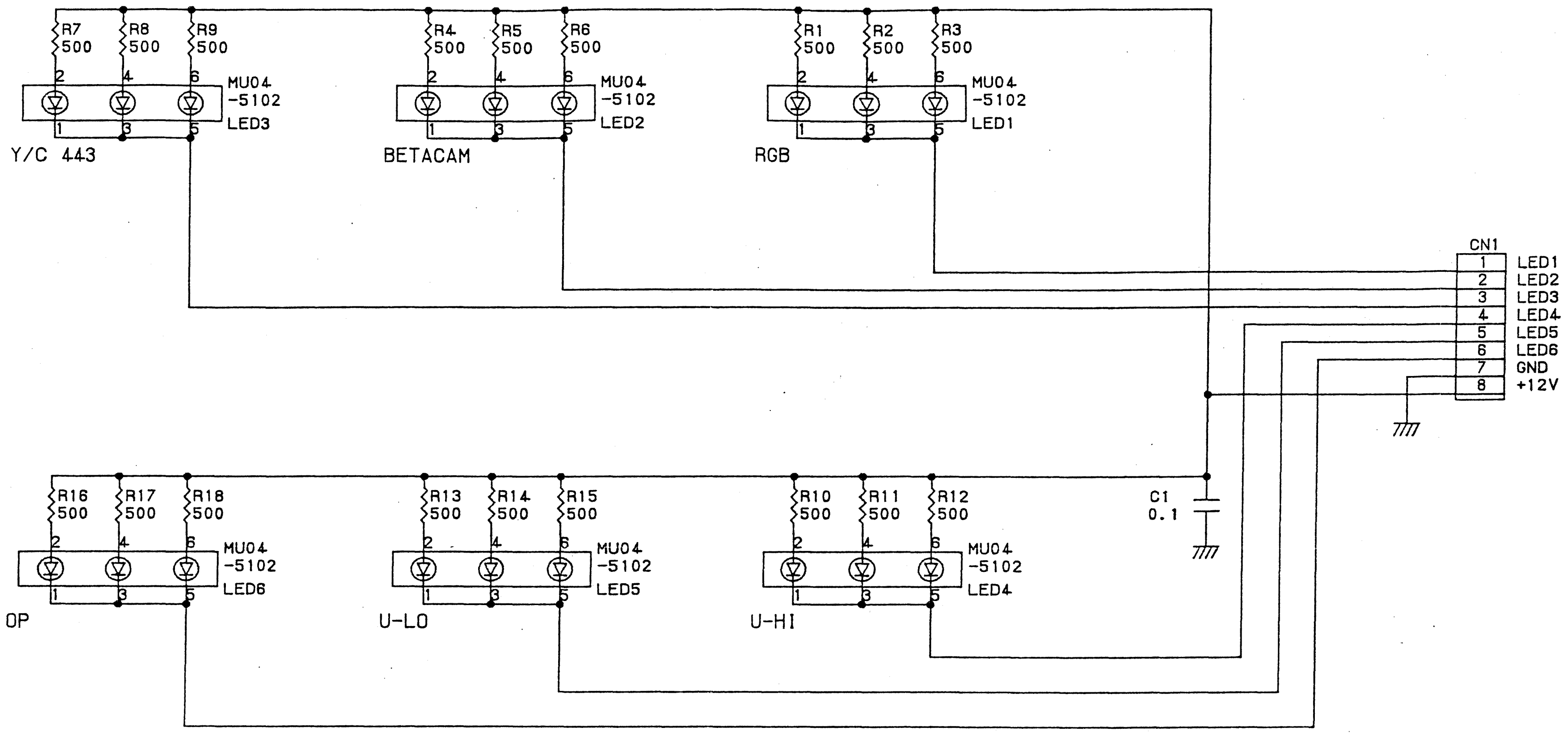
CN10 TN-50P-6P-V1
1.-12V
2.+12V
3.GND
4.GND
5.+5V
6.+5V



REVISION

DESIGND BY	CHECKED BY	APPROVED BY	TITLE
Masanori W	T. Hongama	I. Saito	CT 1 (CAPACITOR)
DATE			DRAWING NO.
DEC. · 15 · 1987			A2 - 4221 - 7/7 - 3

FOR. A COMPANY LIMITED



REVISION

DESIGNED	CHECKED	APPROVED
Masanori W	T. Hongama	J. Saito

DATE

DEC . 15 .1987

TITLE

LED PCB

DRAWING NO.

A3 - 3478

FOR. A COMPANY LIMITED

*** PARTS LIST ***

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

CODE	DESCRIPTIONS			(---------------- N O ----------------									)	
				1	2	3	4	5	6	7	8	9	10	
AAPM2359	PRO LOGIC ARAY	PM-2359	VP16V8E-25	B1										(1)
AAPM2360	PRO LOGIC ARAY	PM-2360	VP16V8E-25	C1										(1)
AAPM2361	PRO LOGIC ARAY	PM-2361	VP16V8E-25	E1										(1)
AAPM2362	PRO LOGIC ARAY	PM-2362	VP16V8E-25	E2										(1)
AAPM2363	PRO LOGIC ARAY	PM-2363	VP16V8E-25	E4										(1)
AAPM2364	PRO LOGIC ARAY	PM-2364	VP16V8E-25	F1										(1)
AAPM2365	PRO LOGIC ARAY	PM-2365	VP16V8E-25	F4										(1)
A074221	I C	SN74221		A4										(1)
A1LS004	I C	SN74LS04		D5										(1)
A1LS032	I C	SN74LS32		A5										(1)
A1LS123	I C	SN74LS123		C2	B5									(2)
A1LS221	I C	SN74LS221		A3	B3	B4	C3	C4	C5	D3	D4			(8)
A5HC4053	I C	TC74HC4053AP		IC38										(1)
A6HFH004	I C	FH-004		IC33	IC34	IC35	IC36	IC37	IC49	IC50	IC51	IC52	IC53	
				IC54										(11)
A6HFH005	I C	FH-005		IC1	IC5	IC6	IC7	IC32	IC46	IC47	IC48	IC55		(9)
A60EL2020C	I C	EL2020CN		IC2	IC11	IC15	IC19	IC23	IC27	IC31	IC39	IC42	IC62	
				IC63	IC64									(12)
A60LF353N	I C	LF353N		IC3	IC10	IC14	IC18	IC22	IC26	IC30	IC40	IC43	IC59	
				IC67										(11)
A60UPC1458	I C	UPC1458C		IC45										(1)
A61MC1414P	I C	MC1414P		A6	C6									(2)
A62UA7905U	I C	UA7905UC		IC71										(1)
A6278L05AC	I C	MC78L05ACP		IC70										(1)
A6278009AP	I C	TA78009AP		IC83										(1)
A64MC4024P	I C	MC4024P		1A										(1)
A64MC4044P	I C	MC4044P		2A										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

CODE	DESCRIPTIONS		(<----------------				N O		----------------)				
			1	2	3	4	5	6	7	8	9	10	
A65AN6308	I C	AN6308	IC8	IC12	IC16	IC65	IC66						(5)
A65CX894	I C	CX-894	IC20	IC24	IC28								(3)
A65MC1495L	I C	MC1495L	IC81	IC82									(2)
A65TL610	I C	TL610	IC4	IC9	IC13	IC17	IC21	IC25	IC29	IC41	IC44	IC58	(10)
A65UPC398C	I C	UPC398C	IC68	IC69	E3								(3)
A67M54566P	I C	M54566P (62304)	D1										(1)
B0A495GTM	TRANSISTOR	2SA495GTM	Q20	Q28	Q31	Q45	Q54	Q55	Q56	Q57	Q58	Q59	(10)
B0A966	TRANSISTOR	2SA966	Q26	Q29	Q34	Q43							(4)
B0C2236	TRANSISTOR	2SC2236Y	Q2	Q3	Q4	Q5	Q6	Q7	Q27	Q30			(8)
B0C372GTM	TRANSISTOR	2SC372GTM	Q1	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	
			Q17	Q18	Q19	Q23	Q24	Q25	Q32	Q33	Q35	Q36	
			Q37	Q38	Q39	Q40	Q42	Q46	Q51	Q52	Q53		(29)
B0N5772	TRANSISTOR	2N5772	Q21	Q22	Q41	Q44							(4)
B205Z33	DIODE	05Z3.3Y	D1										(1)
B21N60	DIODE	1N60	D2	D3	D7	D8							(4)
B21S1588	DIODE	1S1588	D4	D5	D6	D21	D22	D23					(6)
C0DM2AB2R0	C MICA	DM10 C2R0 D1	C16										(1)
C0DM2AB4R0	C MICA	DM10 C4R0 D1	C14	C15									(2)
C0DM2AC100	C MICA	DM10 C100 J1	C81	C244	C247	C249	C250	C453	C454				(7)
C0DM2AC200	C MICA	DM10 C200 J1	C246	C465	C501	C502							(4)
C0DM2AC220	C MICA	DM10 D220 J1	C491										(1)
C0DM2AC430	C MICA	DM10 D430 J1	C494	C495	C496	C497	C498	C499	C500				(7)
C0DM2AC470	C MICA	DM10 D470 J1	C154										(1)
C0DM2AD121	C MICA	DM10 F121 J1	C351										(1)
C0DM2AD131	C MICA	DM10 F131 J1	C349										(1)
C0DM2AD201	C MICA	DM10 F201 J1	C203	C363	C365	C379							(4)
C0DM2AD271	C MICA	DM10 F271 J1	C493										(1)

*** PARTS LIST ***

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

			<------------------------				N O					------------------------>	
CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
C0DM2AD391	C MICA	DM10 F391 J1	C354	C421									(2)
C0DM2FD471	C MICA	DM15 F471 J1	C348										(1)
C0DM2FE102	C MICA	DM15 F102 J1	C364	C409									(2)
C1MC1HA224	C PLASTIC	CQ1HAK 224	C8	C33	C58	C77	C98	C117	C135	C211	C229	C288	(10)
C1MC1HX102	C PLASTIC	CQ1HAK 102	C178	C353	C356	C367	C381	C382	C384	C389	C391	C393	
			C394	C396	C403	C405							(14)
C1MC1HX222	C PLASTIC	CQ1HAK 222	C362	C416									(2)
C1MC1HY103	C PLASTIC	CQ1HAK 103	C25	C50	C69	C177	C328	C332	C368	C378	C400	C402	
			C413	C426									(12)
C2A0FA104Z	C CERAMIC	DD306F104Z25	C1	C2	C3	C4	C6	C7	C10	C11	C12	C17	
			C18	C19	C20	C21	C22	C31	C32	C34	C35	C36	
			C38	C39	C41	C42	C45	C47	C49	C56	C57	C59	
			C60	C61	C63	C64	C66	C67	C75	C76	C78	C79	
			C80	C82	C83	C86	C87	C96	C97	C99	C100	C101	
			C103	C104	C106	C107	C115	C116	C118	C119	C120	C122	
			C123	C133	C134	C136	C137	C139	C140	C142	C143	C146	
			C148	C149	C150	C151	C157	C158	C160	C161	C163	C164	
			C166	C167	C175	C176	C181	C182	C185	C186	C187	C188	
			C189	C191	C192	C193	C194	C195	C197	C198	C199	C200	
			C201	C204	C205	C207	C209	C210	C212	C213	C215	C217	
			C219	C222	C223	C226	C227	C228	C230	C231	C232	C234	
			C236	C237	C238	C239	C240	C245	C248	C251	C252	C253	
			C257	C258	C259	C260	C261	C262	C263	C264	C265	C266	
			C267	C268	C269	C270	C271	C272	C273	C274	C278	C279	
			C280	C281	C282	C284	C287	C289	C290	C293	C294	C295	
			C297	C298	C299	C300	C301	C302	C303	C304	C308	C310	
			C311	C313	C314	C316	C317	C324	C327	C331	C337	C338	
			C342	C344	C347	C350	C352	C355	C357	C358	C360	C361	
			C366	C370	C371	C374	C375	C377	C380	C383	C385	C386	
			C388	C390	C392	C395	C398	C399	C401	C404	C406	C410	
			C411	C412	C414	C417	C423	C424	C425	C429	C430	C431	
			C432	C433	C434	C435	C441	C458	C461	C470	C471	C472	
			C473	C474									(232)
C3TC1VB2R2	C TA ELYC	S991V225MD1	C369										(1)
C4EN0JC470	C AL ELYC	ECEA0JN470S	C159	C162	C165	C168	C170	C171	C180	C241	C242	C309	
			C312	C315	C318	C319	C326	C439	C455	C456	C459	C460	
			C490	C492									(22)
C4EN1CC100	C AL ELYC	ECEA1CN100S	C420										(1)
C4EN1CC470	C AL ELYC	ECEA1CN470S	C179										(1)

(MODEL) : CT-600 (029120)

(UNIT) : CT1 (A24221A)

CODE	DESCRIPTIONS		NO										
			1	2	3	4	5	6	7	8	9	10	
C4EV0JC220	C AL ELYC	ECEA0JU220	C190	C255									(2)
C4EV0JC470	C AL ELYC	ECEA0JU470	C24	C26	C28	C30	C51	C53	C55	C70	C72	C74	
			C89	C90	C91	C93	C95	C109	C110	C112	C114	C127	
			C128	C130	C132	C184	C220	C275	C325	C326	C329	C330	
			C333	C334	C336	C359	C373	C415	C418	C428	C436	C437	
			C438	C455									(42)
C4EV0JD221	C AL ELYC	ECEA0JU221	C48										(1)
C4EV1CC100	C AL ELYC	ECEA1CU100	C387										(1)
C4EV1CC470	C AL ELYC	ECEA1CU470	C9	C13	C27	C29	C37	C43	C44	C46	C52	C54	
			C62	C68	C71	C73	C85	C88	C92	C94	C102	C106	
			C108	C111	C113	C121	C125	C126	C129	C131	C137	C138	
			C141	C145	C147	C152	C153	C172	C173	C196	C202	C206	
			C214	C216	C218	C221	C224	C233	C235	C243	C256	C276	
			C277	C286	C291	C292	C296	C306	C307	C320	C321	C335	
			C339	C340	C341	C343	C345	C346	C376	C397	C407	C408	
			C427	C451	C475	C476	C477	C478	C479	C480			(78)
C51ZW1053	C VARIABLE	ECV-1ZW10X53T	VC7	VC21	VC22	VC23	VC24						(5)
C51ZW2053	C VARIABLE	ECV-1ZW20X53T	VC1	VC2	VC3	VC4	VC5	VC6	VC9	VC10	VC11	VC13	
			VC14										(11)
D0CR2JD681	R CARBON	ERD50TJ681	R41	R53	R67	R79	R91	R103	R167	R188			(8)
D0CU4JC100	R CARBON	RD25U100	R300										(1)
D0CU4JC220	R CARBON	RD25U220	R43	R56	R69	R81	R93	R105	R169	R186	R289		(9)
D0CU4JC510	R CARBON	RD25U510	R82										(1)
D0CU4JC680	R CARBON	RD25U680	R15	R108	R110	R112	R115	R128	R124	R134	R141	R143	
			R147	R151	R155	R159	R162	R164	R174	R194	R210	R212	
			R263	R268	R272	R276	R280	R375	R412				(27)
D0CU4JC750	R CARBON	RD25U750	R55	R57	R70	R94	R106	R149	R153	R166	R189	R265	
			R269	R273	R277	R281	R285	R296					(16)
D0CU4JD101	R CARBON	RD25U101	R42	R54	R68	R80	R92	R104	R168	R170	R171	R187	
			R191	R241	R255	R293	R299	R308	R417	R426	R428		(19)
D0CU4JD121	R CARBON	RD25U121	R297										(1)
D0CU4JD201	R CARBON	RD25U201	R1	R236	R419	R423							(4)
D0CU4JD221	R CARBON	RD25U221	R37	R49	R64	R88	R100	R135	R136	R208	R259	R261	
			R303	R393	R406	R440	R441						(15)

(MODEL) : CT-600 (029120)

(UNIT) : CT1 (A24221A)

			(----------------				N O				----------------)	
CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
DOCU4JD241	R CARBON	RD25U241	R5	R235									(2)
DOCU4JD301	R CARBON	RD25U301	R114	R251	R356	R460	R461						(5)
DOCU4JD331	R CARBON	RD25U331	R260	R384	R396								(3)
DOCU4JD361	R CARBON	RD25U361	R307	R309									(2)
DOCU4JD391	R CARBON	RD25U391	R353	R354									(2)
DOCU4JD471	R CARBON	RD25U471	R10	R125	R313								(3)
DOCU4JD561	R CARBON	RD25U561	R6	R22	R291	R312							(4)
DOCU4JD681	R CARBON	RD25U681	R17	R131	R218	R226							(4)
DOCU4JD751	R CARBON	RD25U751	R28	R228	R340								(3)
DOCU4JD821	R CARBON	RD25U821	R295	R301									(2)
DOCU4JD911	R CARBON	RD25U911	R215										(1)
DOCU4JE102	R CARBON	RD25U102	R4	R12	R13	R34	R38	R46	R50	R60	R61	R73	
			R74	R85	R86	R97	R98	R126	R133	R137	R145	R157	
			R179	R180	R198	R199	R237	R247	R249	R325	R334	R339	
			R345	R383	R397	R431	R442						(35)
DOCU4JE122	R CARBON	RD25U122	R27	R113	R173	R190	R221	R227	R385	R386	R398	R399	
			R421										(11)
DOCU4JE152	R CARBON	RD25U152	R7	R177	R196	R258	R310	R326	R327	R347	R348	R371	
			R372	R387	R400	R410	R415						(15)
DOCU4JE182	R CARBON	RD25U182	R322										(1)
DOCU4JE202	R CARBON	RD25U202	R40	R52	R65	R76	R78	R90	R102	R103	R120	R176	
			R195	R242	R257	R306	R462						(15)
DOCU4JE222	R CARBON	RD25U222	R413	R418	R420	R424	R425	R427					(6)
DOCU4JE242	R CARBON	RD25U242	R127	R142	R245	R294	R304	R311	R317	R422			(8)
DOCU4JE272	R CARBON	RD25U272	R29	R129	R185	R204							(4)
DOCU4JE302	R CARBON	RD25U302	R39	R51	R77	R89	R101	R116	R243	R256			(8)
DOCU4JE332	R CARBON	DR25U332	R25	R107	R109	R111	R119	R123	R140	R175	R193	R270	
			R274	R278	R282	R288	R302	R316	R373	R378	R430	R434	
			R435	R436									(22)
DOCU4JE362	R CARBON	RD25U362	R224										(1)

(MODEL) : CT-600 (029120)

(UNIT) : CT1 (A24221A)

CODE	DESCRIPTIONS		(---------------- N O ----------------)										
			1	2	3	4	5	6	7	8	9	10	
DOCU4JE392	R CARBON	RD25U392	R20	R328	R388	R389	R401	R402					(6)
DOCU4JE432	R CARBON	RD25U432	R66	R337	R343	R344							(4)
DOCU4JE472	R CARBON	RD25U472	R16	R31	R121	R205	R290	R332	R341				(7)
DOCU4JE512	R CARBON	RD25U512	R8	R9	R118	R146	R150	R154	R158	R161	R181	R183	
			R184	R200	R202	R203	R213	R214	R246	R250	R262	R266	
			R286	R287	R314	R315	R319	R358					(26)
DOCU4JE562	R CARBON	RD25U562	R26	R305	R330	R352							(4)
DOCU4JE682	R CARBON	RD25U682	R21	R333	R335	R342	R391	R404					(6)
DOCU4JE752	R CARBON	RD25U752	R336										(1)
DOCU4JE822	R CARBON	RD25U822	R30	R318	R320								(3)
DOCU4JE912	R CARBON	RD25U912	R331										(1)
DOCU4JF103	R CARBON	RD25U103	R33	R36	R45	R48	R59	R72	R84	R96	R122	R144	
			R148	R152	R156	R160	R163	R165	R209	R211	R264	R267	
			R271	R275	R279	R284	R374	R390	R392	R403	R405		(29)
DOCU4JF123	R CARBON	RD25U123	R329	R338									(2)
DOCU4JF153	R CARBON	RD25U153	R321										(1)
DOCU4JF223	R CARBON	RD25U223	R350										(1)
DOCU4JF303	R CARBON	RD25U303	R298										(1)
DOCU4JF333	R CARBON	RD25U333	R207										(1)
DOCU4JF473	R CARBON	RD25U473	R75	R87	R99	R323	R324	R349					(6)
DOCU4JF563	R CARBON	RD25U563	R351										(1)
DOCU4JG104	R CARBON	RD25U104	R292	R346									(2)
DOCU4JG154	R CARBON	RD25U154	R429										(1)
D1MU4D1500	R METAL	TM25GU 1500	R432										(1)
D1MU4D3000	R METAL	TM25GU 3000	R63										(1)
D1MU4D3480	R METAL	TM25GU 3480	R394	R395	R407	R408	R409	R411	R414	R416			(8)
D1MU4E1001	R METAL	TM25GU 1001	R18	R23									(2)
D1MU4E1151	R METAL	TM25GU 1151	R230										(1)

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*** PARTS LIST ***

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

CODE	DESCRIPTIONS		(<---------------- N O									---------------->)	
			1	2	3	4	5	6	7	8	9	10	
D1MU4E1301	R METAL	TM25GU 1301	R62										(1)
D1MU4E1691	R METAL	TM25GU 1691	R217	R219	R233								(3)
D1MU4E2101	R METAL	TM25GU 2101	R231										(1)
D1MU4E3321	R METAL	TM25GU 3321	R220	R234									(2)
D1MU4E8661	R METAL	TM25GU 8661	R216	R232									(2)
D1MU4F1202	R METAL	TM25GU 1202	R229										(1)
D1MU4F2202	R METAL	TM25GU 2202	R379	R381									(2)
D1MU4F2702	R METAL	TM25GU 2702	R380	R382									(2)
D4GXMD301	R VARIABLE	GF06X301	VR21	VR23									(2)
D40AS15B23	R VARIABLE	EVS-70A S15 B23	VR42	VR43									(2)
D41PMD101	R VARIABLE	GF06P101	VR31										(1)
D41PMD201	R VARIABLE	GF06P201	VR2	VR3	VR25	VR29							(4)
D41PMD301	R VARIABLE	GF06P301	VR44	VR45									(2)
D41PMD501	R VARIABLE	GF06P501	VR4	VR6	VR8	VR26							(4)
D41PME102	R VARIABLE	GF06P102	VR27	VR41									(2)
D41PME202	R VARIABLE	GF06P202	VR7 VR28	VR11 VR30	VR12	VR13	VR14	VR15	VR16	VR19	VR20	VR22	(12)
D41PME302	R VARIABLE	GF06P302	VR9	VR46									(2)
D41PME502	R VARIABLE	GF06P502	VR5	VR10	VR17	VR32							(4)
D41PMG204	R VARIABLE	GF06P204	VR18										(1)
E2FL4HB6R8	INDUCTOR	FL-4H 6R8K	L6										(1)
E2FL5HC100	INDUCTOR	FL-5H 100K	L10										(1)
E2FL5HC180	INDUCTOR	FL-5H 180K	L1										(1)
E2FL5HC330	INDUCTOR	FL-5H 330K	L5										(1)
E2FL5HC470	INDUCTOR	FL-5H 470K	L7										(1)
E2FL5HC820	INDUCTOR	FL-5H 820K	L3										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
E2FL5HD151	INDUCTOR	FL-5H 151K	L4										(1)
E2SN5300	INDUCTOR	SN-5-300	L8	L9									(2)
E4D351500I	DELAY LINE	DCE05-35	DL11	DL12	DL13	DL14							(4)
E4S300102	DELAY LINE	SDL300-102T-24	DL2										(1)
E4S300501	DELAY LINE	SDL300-501T-24	DL1										(1)
F3A12JH	SWITCH	A-12JH	S2	S3	S4	S5							(4)
F5PG0H0316	SWITCH	PG0-02-H-03-L16	S1										(1)
F9DIP1T05	RELAY	DIP-1T-05 5V	RLY1	RLY2									(2)
G3PI01112M	CONNECTOR	PI011 12M	CN3	CN4									(2)
G3PI0114M	CONNECTOR	PI011 4M	CN6										(1)
G3PI0116M	CONNECTOR	PI011 6M	CN2										(1)
G3PI0118M	CONNECTOR	PI011 8M	CN1	CN5	CN8								(3)
G3TN50P6PV	CONNECTOR	TN-50P-6P-V1	CN10										(1)
G5LC2SBK	TERMINAL	LC2-S BLACK	9 9	9 9	9	9	9	9	9	9	9	9	(12)
G5LC2SOR	TERMINAL	LC2-S ORANGE	TP1 TP15 TP31	TP2 TP16 TP32	TP3 TP17 TP33	TP4 TP19 TP34	TP8 TP20 TP35	TP10 TP21 TP36	TP11 TP22 TP38	TP12 TP23	TP13 TP24	TP14 TP26	(27)
G63114#2	IC SOCKET	IC31-14#2	CN7	CN9									(2)
G63114#2RK	IC SOCKET	FCP-16-1 LOCK PLATE	CN7	CN9									(2)
G66412643	IC SOCKET	641264-3 (20PIN)	B1	C1	E1	E2	E4	F1	F4				(7)
H6PWA135	WIRE ASS'Y	AWG30X1C L=135	JP-C										(1)
H6PWA165	WIRE ASS'Y	AWG30X1C L=165	JP-B										(1)
H6PWA170	WIRE ASS'Y	AWG30X1C L=170	JP-F										(1)
H6PWA175	WIRE ASS'Y	AWG30X1C L=175	JP-A										(1)
H6PWA190	WIRE ASS'Y	AWG30X1C L=190	JP-D										(1)
H6PWA225	WIRE ASS'Y	AWG30X1C L=225	JP-E										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; CT1 (A24221A)

			(---------------- N O								----------------)	
CODE	**DESCRIPTIONS**		1	2	3	4	5	6	7	8	9	10	
H6PWA245	WIRE ASS'Y	AWG30X1C L=245	JP-H										(1)
H6PWA370	WIRE ASS'Y	AWG30X1C L=370	JP-G										(1)
H6PWC050	WIRE ASS'Y	AWG26 L=050	T2	T6									(2)
H6PWC085	WIRE ASS'Y	AWG26 L=085	T3										(1)
H6PWC090	WIRE ASS'Y	AWG26 L=090	T1	T4									(2)
I24221	P C B	A2-4221-3	9										(1)
Z3C081LGB	KNOB	CAP C-081-LGB L-GRAY	9	9	9								(3)
Z3NR10031	KNOB	KNOB NR-10031 DGW	9	9									(2)
Z3NR10041	KNOB	KNOB NR-10041 DGW	9										(1)

(MODEL) : CT-600 (029120)

(UNIT) : CT2 (A24222A)

CODE	DESCRIPTIONS		(--- N O ---									---)	
			1	2	3	4	5	6	7	8	9	10	
A1LS123	I C	SN74LS123	IC7										(1)
A1LS163	I C	SN74LS163A	IC14										(1)
A2S124	I C	SN74S124	IC36										(1)
A49602	I C	9602PC	IC51										(1)
A5MC4053	I C	MC14053B	IC23										(1)
A6HFH006	I C	FH-006 (LPF)	FL1	FL5	FL7								(3)
A6HFH007	I C	FH-007 (BPF)	FL3	FL10									(2)
A6ZAN612	I C	AN612	IC2	IC21	IC22	IC30	IC31	IC35	IC40	IC41	IC43		(9)
A6ZCXL5001	I C	CXL-5001	IC38	IC45									(2)
A60LF353N	I C	LF353N	IC24	IC28	IC53								(3)
A60UPC1458	I C	UPC1458C	IC54										(1)
A61MC1414P	I C	MC1414P	IC11	IC18	IC32	IC34							(4)
A62TA78L09	I C	TA78L009AP	IC37	IC44									(2)
A62UA7805	I C	UA7805UC	IC29										(1)
A62UA7905U	I C	UA7905UC	IC1										(1)
A6278L05AC	I C	MC78L05ACP	IC46										(1)
A64MC4024P	I C	MC4024P	IC15										(1)
A65AN6308	I C	AN6308	IC12	IC13	IC19	IC20	IC33	IC39	IC42	IC47	IC49		(9)
A65MC1495L	I C	MC1495L	IC52										(1)
A65TL610	I C	TL610	IC26	IC27									(2)
B0A495GTM	TRANSISTOR	2SA495GTM	Q3	Q6	Q36	Q44	Q51	Q52	Q63	Q71	Q73	Q74	(10)
B0A966	TRANSISTOR	2SA966	Q7	Q24	Q26								(3)
B0C2236	TRANSISTOR	2SC2236Y	Q8	Q23	Q25								(3)
B0C372GTM	TRANSISTOR	2SC372GTM	Q1	Q2	Q4	Q5	Q18	Q19	Q20	Q21	Q22	Q27	
			Q29	Q30	Q32	Q33	Q34	Q35	Q38	Q39	Q40	Q41	
			Q42	Q43	Q45	Q46	Q47	Q48	Q49	Q53	Q54	Q55	
			Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q64	Q65	Q66	
			Q67										(41)

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*** PARTS LIST ***

(MODEL) : CT-600 (029120)

(UNIT) : CT2 (A24222A)

CODE	DESCRIPTIONS		N O										
			1	2	3	4	5	6	7	8	9	10	
B2MV2108	DIODE	MV2108	D2										(1)
B205Z22	DIODE	05Z2.2X	D5	D13									(2)
B205Z33	DIODE	05Z3.3Y	D4										(1)
B21S1588	DIODE	1S1588	D1	D10	D11								(3)
CODM2AB5R0	C MICA	DM10 C5R0 D1	C421										(1)
CODM2AC100	C MICA	DM10 C100 J1	C306	C366									(2)
CODM2AC150	C MICA	DM10 C150 J1	C226	C400									(2)
CODM2AC180	C MICA	DM10 C180 J1	C367										(1)
CODM2AC200	C MICA	DM10 C200 J1	C2	C405	C406								(3)
CODM2AC220	C MICA	DM10 D220 J1	C415										(1)
CODM2AC270	C MICA	DM10 D270 J1	C209										(1)
CODM2AC300	C MICA	DM10 D300 J1	C6	C8	C363	C402							(4)
CODM2AC330	C MICA	DM10 D330 J1	C297										(1)
CODM2AC390	C MICA	DM10 D390 J1	C157	C216	C412								(3)
CODM2AC470	C MICA	DM10 D470 J1	C279										(1)
CODM2AC560	C MICA	DM10 E560 J1	C299										(1)
CODM2AC620	C MICA	DM10 E620 J1	C354	C358	C413								(3)
CODM2AC750	C MICA	DM10 E750 J1	C416										(1)
CODM2AC910	C MICA	DM10 E910 J1	C259	C261	C326	C330							(4)
CODM2AD101	C MICA	DM10 F101 J1	C152	C201	C304	C401							(4)
CODM2AD121	C MICA	DM10 F121 J1	C9	C10	C365								(3)
CODM2AD221	C MICA	DM10 F221 J1	C96	C99									(2)
CODM2AD331	C MICA	DM10 F331 J1	C368										(1)
CODM2AD391	C MICA	DM10 F391 J1	C159										(1)
CODM2FD431	C MICA	DM15 F431 J1	C205										(1)
CODM2FD561	C MICA	DM15 F561 J1	C211										(1)

*** PARTS LIST ***

(MODEL) ; CT-600 (029120)

(UNIT) ; CT2 (A24222A)

			(----------------				N	O				----------------)	
CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
C1MC1HA104	C PLASTIC	CQ1HAK 104	C187	C257	C321								(3)
C1MC1HY103	C PLASTIC	CQ1HAK 103	C5	C24	C27	C28	R76	R80	R81	C82	C83	C84	
			C101	C111	C113	C127	C132	C133	C137	C138	C139	C140	
			C141	C143	C144	C148	C149	C151	C158	C164	C193	C194	
			C200	C202	C203	C213	C214	C227	C230	C231	C232	C233	
			C239	C240	C241	C242	C253	C254	C272	C274	C278	C293	
			C294	C295	C296	C298	C307	C308	C309	C311	C313	C314	
			C315	C322	C343	C344	C369	C370	C371	C372	C373	C379	
			C381										(71)
C1MC1HY333	C PLASTIC	CQ1HAK 333	C361										(1)
C1MC1HY473	C PLASTIC	CQ1HAK 473	C180	C414									(2)
C2A0FA104Z	C CERAMIC	DD306F104Z25	C3	C4	C11	C12	C13	C17	C22	C23	C25	C29	
			C31	C32	C33	C34	C37	C42	C43	C46	C47	C55	
			C57	C59	C61	C64	C65	C70	C71	C75	C77	C79	
			C87	C88	C91	C94	C102	C104	C105	C106	C109	C115	
			C116	C118	C119	C124	C126	C130	C131	C135	C142	C150	
			C154	C155	C161	C163	C167	C169	C171	C172	C175	C176	
			C178	C181	C182	C184	C185	C186	C188	C189	C190	C192	
			C196	C197	C198	C204	C206	C207	C208	C217	C218	C219	
			C224	C229	C234	C236	C238	C243	C246	C247	C250	C251	
			C255	C256	C262	C263	C264	C267	C269	C271	C273	C276	
			C280	C281	C282	C284	C285	C286	C287	C289	C290	C301	
			C303	C305	C310	C316	C317	C319	C323	C328	C331	C333	
			C339	C340	C341	C351	C352	C353	C355	C357	C380	C383	
			C384	C385	C386	C387	C388	C389	C420	C421	C422		(139)
C3TC1VB2R2	C TA ELYC	S991V225MD1	C170										(1)
C3TC1VB4R7	C TA ELYC	S991V475MF1	C359	C360									(2)
C3TC1VC100	C TA ELYC	S991V106MH1	C212	C244	C252	C268	C312	C324	C327	C332	C345		(9)
C3TT1AC220	C TA ELYC	ECSZ10MA22	C409	C410									(2)
C4EV0JC220	C AL ELYC	ECEA0JU220	C90										(1)
C4EV0JC470	C AL ELYC	ECEA0JU470	C39	C44	C51	C52	C58	C60	C86	C125	C249	C348	(10)
C4EV0JD221	C AL ELYC	ECEA0JU221	C66										(1)
C4EV1CC100	C AL ELYC	ECEA1CU100	C153	C156	C160								(3)
C4EV1CC470	C AL ELYC	ECEA1CU470	C18	C19	C21	C45	C56	C62	C63	C74	C95	C107	
			C114	C117	C129	C136	C162	C168	C174	C177	C179	C183	
			C191	C195	C221	C237	C245	C248	C260	C265	C266	C270	
			C275	C283	C288	C300	C302	C318	C320	C334	C336	C337	
			C338	C346	C382								(43)

(MODEL) ; CT-600 (029120)

(UNIT) ; CT2 (A24222A)

CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
C51ZW1053	C VARIABLE	ECV-1ZW10X53T	VC2	VC4	VC8	VC9	VC11	VC13	VC16	VC17			(8)
C51ZW2053	C VARIABLE	ECV-1ZW20X53T	VC7										(1)
DOCR2JD681	R CARBON	ERD50TJ681	R108	R321									(2)
DOCR2JE102	R CARBON	ERD50TJ102	R28										(1)
DOCU4JC220	R CARBON	RD25U220	R26	R107	R110								(3)
DOCU4JC470	R CARBON	RD25U470	R350										(1)
DOCU4JC510	R CARBON	RD25U510	R29										(1)
DOCU4JC680	R CARBON	RD25U680	R23	R55	R97	R146	R151	R167	R170	R173	R180	R207	
			R212	R214	R230	R231	R239	R243	R249	R256	R275	R281	
			R287	R291	R294	R300	R302						(25)
DOCU4JC750	R CARBON	RD25U750	R93	R94	R105	R109	R165	R171	R350				(7)
DOCU4JD101	R CARBON	RD25U101	R4	R16	R17	R19	R27	R75	R76	R80	R82	R104	
			R106	R111	R124	R127	R128	R130	R159	R163	R185	R235	
			R264	R265	R307	R311	R320	R322	R333				(27)
DOCU4JD151	R CARBON	RD25U151	R99										(1)
DOCU4JD161	R CARBON	RD25U161	R179										(1)
DOCU4JD201	R CARBON	RD25U201	R345										(1)
DOCU4JD221	R CARBON	RD25U221	R269	R270	R279	R283	R285	R401					(6)
DOCU4JD301	R CARBON	RD25U301	R79	R152	R225	R226	R298	R304					(6)
DOCU4JD331	R CARBON	RD25U331	R5	R140									(2)
DOCU4JD361	R CARBON	RD25U361	R6	R16									(2)
DOCU4JD391	R CARBON	RD25U391	R54	R261									(2)
DOCU4JD471	R CARBON	RD25U471	R89	R189	R209								(3)
DOCU4JD511	R CARBON	RD25U511	R8	R9	R113	R188	R190	R336	R341				(7)
DOCU4JD561	R CARBON	RD25U561	R181	R251	R350								(3)
DOCU4JD681	R CARBON	RD25U681	R78	R133	R260								(3)
DOCU4JD751	R CARBON	RD25U751	R319										(1)
DOCU4JD821	R CARBON	RD25U821	R177										(1)

(MODEL) : CT-600 (029120)

(UNIT) : CT2 (A24222A)

CODE	DESCRIPTIONS		(---- N O ----)										
			1	2	3	4	5	6	7	8	9	10	
DOCU4JE102	R CARBON	RD25U102	R2	R15	R20	R22	R86	R87	R101	R119	R131	R143	
			R164	R178	R183	R184	R194	R213	R216	R221	R229	R237	
			R252	R253	R254	R257	R277	R282	R293	R305	R312	R318	
			R332	R370	R390	R394	R412						(35)
DOCU4JE122	R CARBON	RD25U122	R84	R129	R284	R362	R372	R373					(6)
DOCU4JE152	R CARBON	RD25U152	R191	R278	R374	R414							(4)
DOCU4JE182	R CARBON	RD25U182	R232	R303	R346								(3)
DOCU4JE202	R CARBON	RD25U202	R219	R228	R306								(3)
DOCU4JE222	R CARBON	RD25U222	R7	R145	R274	R335	R340	R348					(6)
DOCU4JE242	R CARBON	RD25U242	R13	R14	R98	R100	R136	R187	R227	R234	R236	R259	
			R262	R263	R299	R308	R309	R344					(16)
DOCU4JE272	R CARBON	RD25U272	R268	R271									(2)
DOCU4JE302	R CARBON	RD25U302	R137	R218									(2)
DOCU4JE332	R CARBON	DR25U332	R3	R21	R25	R88	R103	R112	R117	R172	R192	R193	
			R201	R205	R215	R217	R240	R248	R255	R286	R292	R295	
			R313	R331	R334	R339	R364	R367					(26)
DOCU4JE362	R CARBON	RD25U362	R150										(1)
DOCU4JE392	R CARBON	RD25U392	R347	R375	R376								(3)
DOCU4JE472	R CARBON	RD25U472	R139	R208	R241	R358							(4)
DOCU4JE512	R CARBON	RD25U512	R90	R186	R195	R223	R296	R337	R342	R359	R363	R365	
			R366	R381									(12)
DOCU4JE682	R CARBON	RD25U682	R10	R77	R157	R158	R166	R168	R200	R280	R378		(9)
DOCU4JE822	R CARBON	RD25U822	R338	R343	R361								(3)
DOCU4JE912	R CARBON	RD25U912	R83										(1)
DOCU4JF103	R CARBON	RD25U103	R24	R81	R96	R102	R160	R161	R162	R174	R197	R198	
			R202	R206	R211	R220	R224	R233	R238	R273	R276	R288	
			R290	R297	R301	R310	R323	R330	R351	R352	R371	R377	
			R393	R395	R411	R413							(34)
DOCU4JF123	R CARBON	RD25U123	R353	R354									(2)
DOCU4JF153	R CARBON	RD25U153	R396										(1)
DOCU4JF273	R CARBON	RD25U273	R357	R380									(2)

(MODEL) ; CT-600 (029120)

(UNIT) ; CT2 (A24222A)

			(----------------				N O					----------------)	
CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
DOCU4JF473	R CARBON	RD25U473	R138	R142	R144	R349							(4)
DOCU4JF513	R CARBON	RD25U513	R1										(1)
DOCU4JG154	R CARBON	RD25U154	R125	R132									(2)
DOCU4JG224	R CARBON	RD25U224	R355										(1)
DOCU4JG274	R CARBON	RD25U274	R126	R135	R182								(3)
DOCU4JG334	R CARBON	RD25U334	R141	R391	R392								(3)
D1MU4F3602	R METAL	TM25GU 3602	R153										(1)
D40AS15B23	R VARIABLE	EVS-70A S15 B23	VR39										(1)
D41PMD201	R VARIABLE	GF06P201	VR1	VR8									(2)
D41PMD501	R VARIABLE	GF06P501	VR19	VR22	VR23	VR24	VR25	VR29	VR38				(7)
D41PME102	R VARIABLE	GF06P102	VR9	VR15	VR20	VR21	VR28	VR35	VR36				(7)
D41PME502	R VARIABLE	GF06P502	VR12	VR13									(2)
D41PMF103	R VARIABLE	GF06P103	VR11	VR14	VR16	VR26							(4)
E1EP111500	TRANSFORMER	EP111-500	T1										(1)
E2FL5HC150	INDUCTOR	FL-5H 150K	L31										(1)
E2FL5HC180	INDUCTOR	FL-5H 180K	L15	L21									(2)
E2FL5HC330	INDUCTOR	FL-5H 330K	L16	L19	L22	L26	L27	L32	L33	L34	L36	L40	(10)
E2FL5HC470	INDUCTOR	FL-5H 470K	L1	L6	L8	L9	L12	L14	L17	L18			(8)
E2FL5HC560	INDUCTOR	FL-5H 560K	L24										(1)
E2FL5HD101	INDUCTOR	FL-5H 101K	L10	L11	L13	L29							(4)
E2FL5HD151	INDUCTOR	FL-5H 151K	L23	VL1									(2)
E2SN5300	INDUCTOR	SN-5-300	L2	L3									(2)
E3P1104	INDUCTOR	P-1104 COIL 07K6R8	VL2										(1)
E3P1143	INDUCTOR	P-1143 COIL 07K101	VL3										(1)
F3A12JH	SWITCH	A-12JH	S1										(1)
G3PI0114M	CONNECTOR	PI011 4M	CN3	CN6									(2)

(MODEL) : CT-600 (029120)

(UNIT) : CT2 (A24222A)

CODE	DESCRIPTIONS		(------- N O									-------)	
			1	2	3	4	5	6	7	8	9	10	
G3PI0117M	CONNECTOR	PI011 7M	CN2										(1)
G3PI0118M	CONNECTOR	PI011 8M	CN4	CN5									(2)
G3TN50P6PV	CONNECTOR	TN-50P-6P-V1	CN1A	CN1B									(2)
G5LC2SBK	TERMINAL	LC2-S BLACK	9 9	9	9	9	9	9	9	9	9	9	(11)
G5LC2SOR	TERMINAL	LC2-S ORANGE	TP2 TP20	TP9 TP21	TP10 TP22	TP11 TP23	TP12 TP24	TP13 TP25	TP14 TP26	TP15 TP27	TP16 TP28	TP18 TP29	(20)
G63114#2	IC SOCKET	IC31-14#2	CN7	CN9									(2)
G63114#2RK	IC SOCKET	FCP-16-1 LOCK PLATE	CN7	CN9									(2)
H6PWC060	WIRE ASS'Y	AWG26 L=060	RLY1	RLY2	RLY3	JSC1	JSC2						(5)
H6PWC085	WIRE ASS'Y	AWG26 L=085	JFA1	JFA2	JFB1	JFB2							(4)
I24222	P C B	A2-4222-3	9										(1)
Z3C081LGB	KNOB	CAP C-081-LGB L-GRAY	9										(1)
Z3NR10031	KNOB	KNOB NR-10031 DGW	9										(1)
Z6HC43U107	CRYSTAL	HC/43U 10.738635 MHZ	X4										(1)
Z6P1167	CRYSTAL	P-1167	X2										(1)
Z635795	CRYSTAL	HC/18U 3.579545MHZ	X3										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; POWER PCB (A24223)

CODE	DESCRIPTIONS		NO 1	2	3	4	5	6	7	8	9	10	
A62SI3052V	I C	SI-3052V W/ACC	IC6										(1)
A62SI3122V	I C	SI-3122V W/ACC	IC1	IC2									(2)
A62UA7912U	I C	UA7912UC	IC4	IC5									(2)
A62220INSU	I C	TO-220INSULATE KIT	IC4	IC5									(2)
A6278010AP	I C	TA78010AP	IC3										(1)
B2S5VB10	DIODE	S5VB10	DB1	DB2	DB3								(3)
B21S1588	DIODE	1S1588	D1	D2	D3	D4	D5	D6	D7	D8	D9	D11	(10)
B3GL5PR1	LED	GL-5PR1	D10										(1)
C4EP1CE472	C AL ELYC	ECET16R472SW	C8										(1)
C4EP1EE472	C AL ELYC	ECET25R472SW	C2	C6									(2)
C4EV0JC220	C AL ELYC	ECEA0JU220	C9										(1)
C4EV1CC100	C AL ELYC	ECEA1CU100	C1	C3	C4	C5	C7						(5)
D0CR2JE152	R CARBON	ERD50TJ152	R1										(1)
D0CR4JC620	R CARBON	RD25S620	R2										(1)
G3TN50P3PV	CONNECTOR	TN-50P-3P-V1	CN7										(1)
G3TN50P5PV	CONNECTOR	TN-50P-5P-V1	CN2										(1)
G3TN50P6PV	CONNECTOR	TN-50P-6P-V1	CN1	CN3	CN4								(3)
G5M110D06	TERMINAL	M110D-6 WITH COVER	TB1										(1)
I24223	P C B	A2-4223-3	9										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; WIRING (A24224A)

CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
B3GL9PG4	LED	GL-9NG4	9										(1)
E0PT1192	TRANSFORMER	PT-1192-2	9										(1)
F4SEW07BB	SWITCH	SE-W202A-07BB	9										(1)
GZACP01CF1	CONNECTOR	AC-P01CF01	9										(1)
G1BNC071	CONNECTOR	BNC071	9 9	9	9	9	9	9	9	9	9	9	(11)
G2R12BRB7P	CONNECTOR	RM12-BRB-7P	9	9									(2)
G2R12BRB7S	CONNECTOR	RM12-BRB-7S	9	9									(2)
G2TRD12P	CONNECTOR	RM15TRD-12P	9										(1)
G2TRD12S	CONNECTOR	RM15TRD-12S	9										(1)
G3PI01112F	CONNECTOR	PI011 12F	9	9									(2)
G3PI0113F	CONNECTOR	PI011 3F	9										(1)
G3PI0114F	CONNECTOR	PI011 4F	9	9	9	9							(4)
G3PI0116F	CONNECTOR	PI011 6F	9										(1)
G3PI0117F	CONNECTOR	PI011 7F	9										(1)
G3PI0118F	CONNECTOR	PI011 8F	9	9	9	9	9	9					(6)
G3TN50H3PA	CONNECTOR	TN-50H-3P-A1	9										(1)
G3TN50H4PA	CONNECTOR	TN-50H-4P-A1	9										(1)
G3TN50H5PA	CONNECTOR	TN-50H-5P-A1	9										(1)
G3TN50H6PA	CONNECTOR	TN-50H-6P-A1	9	9	9	9	9						(5)
G4P1158	CONNECTOR	P-1158	9	9									(2)
G5T10	TERMINAL	T-10	9										(1)
KATM1375	SCREW	WASHER TM-137-5	9	9									(2)
KE4850CA20	CASTER	FOOT BU-4850-CA20	9	9	9	9							(4)
KZ25NSKS	MECHA PARTS	BEARING 1/4 INCH	9	9									(2)
Z0FGMB15	FUSE&FUSEHLDR	FGMB 1.5A	9										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; WIRING (A24224A)

CODE	DESCRIPTIONS		<---------------- NO 1	2	3	4	5	6	7	8	9	----------------> 10	
Z0FHB02	FUSE&FUSEHLDR FH-B02		9										(1)
Z2M406108	HEAT SINK	HEAT SHINK V-3130	9										(1)
Z4D06B12PL	MOTOR FAN	D06B-12PL	9										(1)
Z4FG064U	MOTOR FAN	FG-064U	9										(1)

(MODEL) ; CT-600 (029120)

(UNIT) ; LED PCB (A33478A)

CODE	DESCRIPTIONS		1	2	3	4	5	6	7	8	9	10	
B3MU045102	LED	MU04-5102	LED1	LED2	LED3	LED4	LED5						(5)
C2A0FA104Z	C CERAMIC	DD306F104Z25	C1										(1)
D0CR4JD511	R CARBON	RD25S511	R1 R11	R2 R12	R3 R13	R4 R14	R5 R15	R6	R7	R8	R9	R10	(15)
G3PI0218M	CONNECTOR	PI021 8M	CN1										(1)
I33478	P C B	A3-3478	9										(1)

Warning

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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